



# VA San Diego Healthcare System “Best Practices”

*(Clinical Informatics as a Tool for Improving  
Performance and Changing Behaviors)*

Robert M Smith, MD  
3-8-2011

# VHA: the 50,000 foot view

- 150+ Medical Centers across the USA
- 800+ 600 satellite outpatient clinics
- Organized into 22 regional networks (VISNs)
- Approximately 6 million veteran users
- Outpatient visits per year: 50M
- Admissions per year: 550k
- Primary Missions are:
  - Patient Care
  - Medical Research
  - Medical Education
- Salaried staff physician model

# VistA Usage

- 1.1B orders, 1M/day
- 200M Images, 350k/day
- 500M Documents, 500k/day
- 500M Medication admin via BCMA, 500k/day
- 700M Vitals, 600k/day
- 1M lab results /day
- 200M Outpatient Rx's dispensed/year

# EHR functionalities

- Provider Order Entry
- Charting and record review
  - structured and unstructured entry
  - linkages to decision support tools
- Consult/request management
- Results reviewing
- Alert management
- Role, patient, and disease-specific reminders
- Panel-based view and query
- Records Retrieval from other systems (VHA-wide and DOD); nascent data-sharing with private sector (NHIN-KP)
- Image viewing
  - Radiology
  - Other clinical images
  - Scanned documents

# CPRS – our EMR

- One centrally-developed application, “CPRS” (Computerized Patient Record System)
- A Delphi view of a Mumps Database
- Built upon component results-reporting systems of laboratory, pharmacy, radiology over 24 years
- “Complete” GUI EMR only since Feb 1998
- Many iterations – currently on version 26
- “Next Generation” EMR (web-xml based) under development
- Additional partner applications all grouped together under the umbrella of “VistA”

# VA San Diego Milestones 1999-2011

- 1998: EMR with Graphical Interface on-line and in use
- 1999: Implementation of on-line documentation and resulting
- 2000-onward: Progressive implementation of automated reporting systems to track safety and performance-related information (e.g. DNR use, restraint use, quality indicators, others)
- 2001: Mandated On-line provider order entry (with all that entails)
- 2001: Bar-Coded Medication Administration (BCMA)
- 2002: System-wide PACS implementation for all imaging
- 2003: Deployment of on-line “Patient Event Reporting System”
- 2004-onward: Provider Report cards using automated reporting systems
- 2004-2005: Bidirectional Health Information sharing between VA/DOD
- 2005: Care Management Software; On-line e-signed patient consent
- 2009-2010: Bidirectional Information Exchange with KP (pilot for NHIN/VLER)



# Implementation of an Electronic Medical Record and Quality/Safety

EMR Feature	Potential beneficial effect	VASDHS Status
Order entry	Bring needed data to attention at time of order; eliminate transcription error	Mandatory use by all providers
Order sets/quick orders	Pick lists influence ordering selection and standardize care processes	Growing use: antimicrobials, heparin, PCA, ICU drips, restraints
Order checks	Reduce errors, warn of possible adverse outcomes, document exceptions	Allergy, drug-drug, dupl. drugs, others in use
Clinical Reminders	Increase patient specific compliance with care guidelines, prompt for needed care	Point of Care prompts for multiple preventive and chronic care topics in use
View alerts	Focus attention on abnormal results or documents requiring review, prompt for signature, etc	Broad use.
Electronic notes	Improve note availability and accessibility	Required of all staff and extensively used-essentially all visits have on-line documentation
Note templates	Guide appropriate documentation	Broad use, including clinical note templates
Overall	Standardize care delivery processes, allow automated tracking of quality outcomes	Benefits realized and continuing to accrue!



# Configurable patient selection dialog

Patient Selection

Patient List

☒ Default: ICU M
 ☐ Providers
 ☐ Team/Person
 ☐ Specialties

Notifications

...	Patient
	BULIAHN,U
	BULIAHN,U

Process Info

Patient Record Flags

Active Flag

CONSERVATORSHIP STATUS

Flag Name:

CONSERVATORSHIP STATUS

Assignment Narrative:

This patient has a permanent conservatorship. The appointed conservator is Jane Q. Citizen, the patients niece. Ms. Citizen can be reached at:

(858) 555-1212 x 12134 (work)  
 (858) 555-1234 (home) or  
 (619) 123-4567 (cell)

Address:

1234 Sycamore Drive  
 Lemon Grove, CA, 92161

Flag Type: CLINICAL  
 Flag Category: II (LOCAL)  
 Assignment Status: Active  
 Initial Assigned Date: NOV 05, 2006@12:06:45  
 Approved by: PARTHMORE,JACQUELINE G  
 Next Review Date: NOV 05, 2007  
 Owner Site: SAN DIEGO HCS  
 Originating Site: SAN DIEGO HCS

Signed, Linked Notes of Title: PATIENT RECORD FLAG CATEGORY II - CONSERVATORSHIP

Date	Action	Author
FEB 27, 2005@16:45	NEW ASSIGNMENT	SMITH,ROBERT M

OK

Cancel

Settings

Forwarded By/When

abl...

Close



**BULIAHN,UDJELUI A**  
101-09-2251 Dec

## Active Problems

Hypertension Nos  
Diab Mellii W/O Comp Typ II  
Old Myocardial Infarct  
Aortocoronary Bypass  
Atypical Chest Pain  
Dyslipidemia  
Alcohol Dependence  
Treatment Compliance Problem  
Diabetes  
Coronary Artery Disease  
Postsurgical Aortocoronary  
Cortical Cataract  
Low Back Pain (ICD-9-CM 734.90)  
Upper Gi Bleeding (ICD-9-CM 578.01)

## Active Medications

Non-VA Aspirin 325mg Ta

## Recent Lab Results

No Orders Found.

## Patient Inquiry

Bad Addr:

Confidential Address:  
NO CONFIDENTIAL ADDRESS  
From/To: NOT APPLICABLE

Confidential Address Categories:

POS: VIETNAM ERA  
Relig: CATHOLIC  
Race: WHITE

Claim #: SS  
Sex: MALE  
Ethnicity: NOT HISPANIC OR LATINO

Combat Vet Status:  
Primary Eligibility:  
Other Eligibilities:  
Unemployment Status:  
Means Test Sign

Patient's status  
Veteran is elig  
Primary Means Test  
Primary Care T  
PC Provi

## At- Glucose Pck

AT- GLUCOSE P

Collection  
Test Name  
AT- GLUCOSE P  
Comments:  
ANALYZER: M6

## Infection Control Alert Sep 05,2006

TITLE: Infection Control Alert

DATE OF NOTE: SEP 05, 2006@11:53

ENTRY DATE: NOV 05, 2006@11:54:05

AUTHOR: SMITH,ROBERT M

EXP COSIGNER:

URGENCY:

STATUS: COMPLETED

Patient is currently growing Vancomycin resistant enterococcus from urine sputum culture. Body fluid isolation precautions should be taken as well universal precautions.

Consideration should be given to prevent spread to other patients.

/es/ Robert M. Smith, MD  
Staff Physician; Pulm/Critical Care  
Signed: 11/05/2006 11:57

Print

Close

Print

Close

Select New Patient

Print

Close

**BULIAHN,UDJELUI ANYY**

101-09-2251

Dec 21,1943 (62)

**5SICUM 5S-A5106-13**

Provider: SMITH,ROBERT M

FIRM LAJOLLA-BLUE / Baxi,Sunita C

Attending: Maisel,Alan

Pt Ins

Flag

Remote  
Data

Postings

**D**

View options

Active  
Inactive  
Both active and inactive  
Removed

New problem

Active Problems (16 of 16)

Stat...	Description	Onset Date	Last Upda...	Provider	Service
A	DIAB MELLI W/O COMP TYP II		Jul 01 1999	Sheldon,Elana L	Medical Service
A	OLD MYOCARDIAL INFARCT		Jul 01 1999	Sheldon,Elana L	Medical Service
A	AORTOCORONARY BYPASS		Jul 01 1999	Sheldon,Elana L	Medical Service
A	Atypical Chest Pain Daily CP x 7 years yet normal LV systolic function on 6/99 Pain relieved by Vicodin. Patient had over 20 cardiac cath.		Jul 01 1999	Felicio,Leda S	
A	Dyslipidemia		Jul 01 1999	Felicio,Leda S	
A	HYPERTENSION NOS		Jul 01 1999	Chludzinski,Paula	Medical Service
A	Alcohol Dependence States: no narcotics given for CP with exertion, will drink		Apr 04 2002	Felicio,Leda S	
A	Treatment Compliance Problem Requests narcotics for chest pain with exertion Metoprolol refill last obtained 8 months ago Diltiazem refill last obtained 5 months ago Simvastatin last obtained 8 months ago Nitropatch refill last obtained 6 months ago		Apr 04 2002	Felicio,Leda S	
A	Diabetes Last refill of metformin obtained 6 months ago		Apr 04 2002	Felicio,Leda S	
A	Coronary Artery Disease		Apr 04 2002	Felicio,Leda S	
A	Postsurgical Aortocoronary Bypass Status Four vessel bypass in 1/1993 Repeat 4 vessel bypass in 8/1993, LIMA to LAD		Apr 04 2002	Felicio,Leda S	
A	Cortical Cataract		Nov 01 2002	Kirby,Brooke S	Ophthalmology
A	Low Back Pain (ICD-9-CM 724.2)		Apr 11 2003	Baxi,Sunita C	Medical Service
A	Upper GI bleeding (ICD-9-CM 578.9)		Apr 11 2003	Baxi,Sunita C	Medical Service
A	Coronary Artery Disease (ICD-9-CM 414.9)		Apr 01 2004	Baxi,Sunita C	Medical Service
A	Syncope (ICD-9-CM 780.2)		Apr 14 2005	Krummen,David	Medical Service



# Tools for efficient retrieval of information: order display groups

**Vista CPRS in use by: Smith,Robert M (vista.san-diego.med.va.gov)**

File Edit View Action Options Tools Help

**TESTPATIENT,SUSAN** Visit Not Selected Primary Care Team Unassigned CIRM Postings  
000-00-9988 Dec 09,1960 (39) Provider: SMITH,ROBERT M Data **WD**

Order Sheet All Services, Active Orders

Service	Order	Start / Stop	Provider	Nrs	Clk	C...	Sts
Resuscitation Status	>> Code Status: Do not Resuscitate. NOTE: ATTENDING MUST CO-SIGN THE CHART COPY (PRINTED HARD COPY) OF THIS ORDER WITHIN 24 HOURS.	Start: 05/18/00 11:49	Smith,R				active
Legal Status	>> Legal Status (select one): VOLUNTARY If voluntary, consent signed? yes	Start: 05/18/00 11:56	Smith,R				active
Safety Orders	>> Place patient in: RESTRAINTS NOT TO EXCEED 4 HOURS. Danger to self? YES	Start: 05/18/00	Smith,R				active
	NO restraints/seclusion:						
	Precautions: Head of bed	Start: 05/18/00 11:49	Smith,R				active
	RUM) SP LB #344652	Start: 01/06/00	Lab,D				active
	TOOL FECES SP LB	Start: 12/17/99 09:17	Lab,D				active
	TOOL FECES SP LB	Start: 12/17/99 09:17	Lab,D				active
	MA) SP LB #458951	Start: 10/26/99	Lab,D				active

**Custom Order View**

Order List View

SERVICES, Active (includes pending, recent activ)

OK Cancel

Service/Section

- M.A.S.
- OTHER HOSPITAL SERVICE
- PROCEDURES
- ALLERGIES
- SUPPLIES/DEVICES
- RESUSCITATION STATUS
- LEGAL STATUS
- SAFETY ORDERS
- RESPIRATORY
- DC INSTRUCTIONS

Order Status

- All
- Active (includes pending, recent activ)
- Current (Active & Pending)
- Discontinued
- Completed/Expired
- Expiring
- Pending
- On Hold
- New Orders
- Unsigned
- Unverified by anyone
- Unverified by Nursing
- Unverified by Clerk

☒ Reverse Chronological Sequence

☒ Group Orders by Service

D/C Summ Labs Reports

Vista CPRS in use by: Payne, Thomas H (vista.seattle.va.gov)

File Edit View Action Options Tools Help

TEST, JOHN DOE THOMPS Mar 08,00 13:00 Primary Care Team Unassigned CIRM Postings  
000-00-7654 Feb 10,1983 (17) Provider: PAYNE, THOMAS H Data CWAD

Order Sheet All Services, Active Orders

All Services, Active  
Admit to General Surgery  
Admit to Surgical Icu  
Admit to Medical Icu/Ccu

Write Orders

MEDICINE Order Sets (S)  
MENTAL HEALTH Order  
REHAB Orders Sets  
SURGERY Order Sets  
SCI INPT Menu  
SCI OUTPT ANNUAL EV  
INPT RESEARCH ORDE  
SEATTLE OUTPT Clinic  
=====

TACOMA OUTPT Clinic I  
TACOMA INPATIENT M  
TACOMA PSYCH Menu  
TACOMA NHCJ Menu  
TACOMA BLIND REHAE  
=====

Seattle Consults & Proce  
American Lake Consults  
=====

Radiology/Nuc.Med Ord  
Radiology Quick Orders (

=====

LAB: ICU (Ward Collect)  
Central Line (W/C)  
Alternate Lab Times (W/C  
LAB: On Floors (Lab Collect)  
=====

Microbiology Orders

Cover Sheet Problems Me

Hospital Acquired Pneumonia... Done

- ANTIBIOTIC THERAPY FOR HOSPITAL-ACQUIRED PNEUMONIA -

Inpatient Medication Order

Medication Dosage Route Schedule  
IMIPENEM INJ,SOLN IV 500MG INTRAVENOI Q6HRS  
INTRAMU  
INTRAVE  
AD (RIGH  
AS (LEFT  
AU (BOTH

Dispense Drug

Comments

Priority  
ROUTINE  
ASAP  
ROUTINE  
STAT

IMIPENEM INJ,SOLN IV 500MG IV Q6HRS

Accept Order

Quit

Gentamicin 7mg/kg IV Q24H (ADJUST DOSE/INTERVAL PER RENAL FUNCTION)  
Levofloxacin 500mg IV Q24H  
Vancomycin 1gm IV Q12H (ADJUST DOSE/INTERVAL PER RENAL FUNCTION)  
Metronidazole 500mg IV Q6H  
Clindamycin 600mg IV Q8H

CONSULT TO INFECTIOUS DISEASE SERVICE  
CONSULT TO PULMONARY SERVICE



	<b>BULIAHN,UDJELUI ANYY</b> 101-09-2251      Dec 21,1943 (62)	<b>5SICUM 5S-A5106-13</b> Provider: SMITH,ROBERT M	FIRM LAJOLLA-BLUE / Bexi,Sunita C Attending: Maisel,Alan	Pt Insur	<b>Flag</b>	Remote Data		Postings <b>WD</b>
--	--	---	---	----------	-------------	-------------	--	-----------------------

View Orders	Active Orders (includes Pending & Recent Activity) - ALL SERVICES									
Active Orders (includes Pending & Recent Activity)	Servi...	Order	Start / Stop	Provider	Nurse	Clerk	Chart	Status	Locati...	
Delayed Admit To Dou Orders	A/D/T	>> Change Treating Specialty Attending: MAISEL,ALAN Resident, NP or PA: MUNGEKAR,SWATHI H Pager #: 0964 Intern: HIRST,KATHRYN P Pager #: 4982 Treating Specialty: ICU MEDICAL	Start: 03/19/06 20:34	Hirst,K	WFD	MNA		active	5sicuboe	
Write Delayed Orders										
Write Orders										
Main Outpatient Menu...										
Meds (OP)										
Non-VA Meds										
New Allergies/ADR's										
Consults										
Imaging(OP)										
Labs (OP)										
Respiratory Therapy/OP										
Procedure Orders										
Text Order (OP)										
Specialty Clinics										
Main Inpatient Menu...										
Meds (Inpt)										
New Allergies/ADR's										
Consults										
Diet Menu (Inpt)										
Imaging (Inpt)										
Labs (Inpt)										
Respiratory Therapy/InPt										
Procedure Orders										
Text Orders (Inpt)										
DC Instructions(Inpt)										
Anesthesia										
Extended Care										
ICU										
Medicine										
Cardiology										
Neurology										
Psychiatry										
Research										
Spinal Cord										
Surgery										
PACU										
ASU										



# Lessons Learned

- Automated order entry is a sustainable method for influencing ordering behavior
- An effective order entry system should provide extensive order configuration tools
- Substantial work is needed to optimize ordering systems (both to make them effective and to obtain provider buy-in)
- A multidisciplinary effort is needed to assure that all problems/concerns/issues are considered



# Other EMR safety features: availability and display of information

- Legible notes and orders
- Consolidation of important components of record
- Accessible from multiple locations
- Accessible by multiple providers
- Elimination of transcription error with provider order entry
- Cover sheet displays pertinent data, for example, eligibility, vital signs, immunizations, location of patient, next appointment, Next of kin, address and phone number easily available
- Ability to obtain data from remote sites (both outlying clinics and other national centers)

# Narrative Documentation – outline

- Simple templates
  - Linked to notes
  - Patient data objects
  - Starting templates for notes in progress
- Interactive dialogs
  - Controls
  - Branching logic
- Saving data as well as text
- Links to reference sources
- Linking notes to consults / procedures
- Actions as a byproduct of documentation
- Images linked to templates
- Templates on the fly

File Edit View Action Options Tools Help	<b>BULIAHN,UDJELUI ANYY</b> 101-09-2251 Dec 21,1943 (62)	<b>5SICUM 5S-A5106-06</b> Provider: SMITH,ROBERT M	FIRM MISSION VALLEY-2 / Laverdiere,Julia B Attending: Loredo,Jose S	Pt Insu Flag	Remote Data Available	<b>WAD</b>
--	---	---	--	--------------	-----------------------	------------

Last 250 Signed Notes Adm: 10/24/06 Critical Care Attending Note, 5SICUMED, Judd Landsberg, M.D. (Nov 04,06@14:21)

- [-] All signed notes
  - + Anesthesia Code Blue Note
  - + Cardiac Echo Report
  - + Cardiology Clinic
  - + Chaplain/Screening
  - + Chaplain/Spiritual Care
  - + Code Blue Leader Note
  - + Consult/Pmrs/Ot
  - + **Critical Care Attending Note**
    - Nov 04,06 Critical Care Attending Note, 5SICUMED, Judd Landsberg, M.D.
    - Nov 04,06 Critical Care Attending Note, 5SICUMED, Elijah S. Aronoff-Spencer,
    - Nov 03,06 Critical Care Attending Note, 5SICUMED, Judd Landsberg, M.D.
    - Nov 01,06 Critical Care Attending Note, 5SICUMED, Judd Landsberg, M.D.
    - Oct 31,06 Critical Care Attending Note, 5SICUMED, Jose S. Loredo, MD.
    - Oct 30,06 Critical Care Attending Note, 5SICUMED, Jose S. Loredo, MD.
    - Oct 29,06 Critical Care Attending Note, 5SICUMED, Jose S. Loredo, MD.
  - + Critical Care Resident Note
  - + Dc Planning/Discharge Planning
  - + Emergency Department
  - + Eye Clinic Check-In Note
  - + Fall Event (inpt)
  - + Firm Exit Interview
  - + Firm/Clinic
  - + General Psychiatry Geriatric Clinic
  - + Gi/Resident
  - + Id/Spid/Telephone Contact
  - + Informed Consent Progress Note
  - + Med/Gen/Firm/Telephone Contact
  - + Med/Gen/Telephone Contact
  - + Med/Id/Telephone Contact
  - + Medicine Resident Note
  - + Musculoskeletal Consult
  - + Non-Formulary Drug Consult
  - + Notice Of Computer Downtime

D...	Title	Author	Location
Nov 04,06	Critical Care Attending Note	Landsberg,Judd	5SICUMED
Nov 04,06	Critical Care Attending Note	Aronoff-Spencer...	5SICUMED
Nov 03,06	Critical Care Attending Note	Landsberg,Judd	5SICUMED
Nov 01,06	Critical Care Attending Note	Landsberg,Judd	5SICUMED
Oct 31,06	Critical Care Attending Note	Loredo,Jose S	5SICUMED
Oct 30,06	Critical Care Attending Note	Loredo,Jose S	5SICUMED
Oct 29,06	Critical Care Attending Note	Loredo,Jose S	5SICUMED

**TITLE:** Critical Care Attending Note

**DATE OF NOTE:** NOV 04, 2006@14:21      **ENTRY DATE:** NOV 04, 2006@14:21:19

**AUTHOR:** LANDSBERG,JUDD      **EXP COSIGNER:**

**URGENCY:**      **STATUS:** COMPLETED

Patient seen and examined with housestaff and critical care fellow. Lal imaging, ICU flow sheets reviewed. O/n Ti peaked, pt had episode of as bradycardia. This a.m. sedation lightened, but pt became agitated c/o and SOB -> resp alk on abg. AFEb sbp 100-180 vent 20 tv 400 40% abg 7 i/o -1.4L Alert/awake. CXR slightly improved better aeration left base. Labs wbc 12 down from 15k hct 28 Ti peak 1.25 now st seg elevation/q.

IMP: gastric aspiration / PNA , ARDS (improving compliance, Fever gone improving line sepsis and LLL VAP. Surveillance cultures NGTD. Gastric (? malignant) ulcer stable no bleeding. Small Ti leak, non-spe change, likely reflects demand ischemia associated with sepsis, poorly controlled HTN, weaning attempts. Decreased GFR (associated with diure: low albumin poor oncotic state) complicates the picture.

P/ -Increase pain medication, decrease tidal volume, ensure pt not ove: breathing.

[-] Templates

Encounter

New Note

Last 250 Signed Notes    Adm: 10/24/06    Critical Care Attending Note, 55ICUMED, Judd Landsberg, M.D. (Nov 04,06@14:21)

- [-] All signed notes
  - [+] Anesthesia Code Blue Note
  - [+] Cardiac Echo Report
  - [+] Cardiology Clinic
  - [+] Chaplain/Screening
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  - [+] Consult/Pmrs/Ot
  - [+] **Critical Care Attending Note**
    - [ ] Nov 04,06 Critical Care Attending Note, 55ICUMED, Judd Landsberg, M.D.
    - [ ] Nov 04,06 Critical Care Attending Note, 55ICUMED, Eliah S. Aronoff-Spencer,
    - [ ] Nov 03,06 Critical Care Attending Note, 55ICUMED, Judd Landsberg, M.D.
    - [ ] Nov 01,06 Critical Care Attending Note, 55ICUMED, Judd Landsberg, M.D.
    - [ ] Oct 31,06 Critical Care Attending Note, 55ICUMED, Judd Landsberg, M.D.
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    - [ ] Oct 29,06 Critical Care Attending Note, 55ICUMED, Judd Landsberg, M.D.
  - [+] Critical Care Resident Note
  - [+] Dc Planning/Discharge Planning
  - [+] Emergency Department
  - [+] Eye Clinic Check-In Note
  - [+] Fall Event (inpt)
  - [+] Firm Exit Interview
  - [+] Firm/Clinic
  - [+] General Psychiatry Geriatric Clinic
  - [+] Gi/Resident
  - [+] Id/Spid/Telephone Contact
  - [+] Informed Consent Progress Note
  - [+] Med/Gen/Firm/Telephone Contact
  - [+] Med/Gen/Telephone Contact
  - [+] Med/Id/Telephone Contact
  - [+] Medicine Resident Note
  - [+] Musculoskeletal Consult
  - [+] Non-Formulary Drug Consult
  - [+] Notice Of Computer Downtime

D...	Title	Author	Location
Nov 04,06	Critical Care Attending Note	Landsberg,Judd	55ICUMED
Nov 04,06	Critical Care Attending Note	Aronoff-Spencer...	55ICUMED
Nov 03,06	Critical Care Attending Note	Landsberg,Judd	55ICUMED
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Oct 30,06	Critical Care Attending Note	Loredo,Jose S	55ICUMED
Oct 29,06	Critical Care Attending Note	Loredo,Jose S	55ICUMED

**List Signed Notes by Author**

Search string:

ARDS

OK

Cancel

Your current view of notes will be searched for the specified string. If you want to search a larger range of notes, you need to pull up that view

re Attending Note

5@14:21    ENTRY DATE: NOV 04, 2006@14:21:19

JDD    EXP COSIGNER:

STATUS: COMPLETED

Patient seen and examined with housestaff and critical care fellow. Lab imaging, ICU flow sheets reviewed. O/n Ti peaked, pt had episode of as bradycardia. This a.m. sedation lightened, but pt became agitated c/o and SOB -> resp alk on abg. AFEb sbp 100-180 vent 20 tv 400 40% abg 7 i/o -1.4L Alert/awake. CXR slightly improved better aeration left base. Labs wbc 12 down from 15k hct 28 Ti peak 1.25 now st seg elevation/q.

IMP: gastric aspiration / PNA , ARDS (improving compliance, Fever gone improving line sepsis and LLL VAP. Surveillance cultures NGTD. Gastric (? malignant) ulcer stable no bleeding. Small Ti leak, non-spe change, likely reflects demand ischemia associated with sepsis, poorly controlled HTN, weaning attempts. Decreased GFR (associated with diure: low albumin poor oncotic state) complicates the picture.

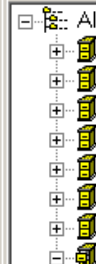
P/ -Increase pain medication, decrease tidal volume, ensure pt not ove: breathing.

- [-] Templates
  - Encounter
  - New Note

B  
11

## Template: PROCEDURE/INFORME

Last 250



This note is required to document the discussion that the provider held with the patient/surrogate for informed consent for procedures/treatments that:

- a) require sedation,
- b) produce significant discomfort and/or
- c) have significant risk of complication or morbidity.

Documentation on this procedure/surrogate's signature for Procedures/Treatment.

CLICK LINK AT BOTTOM OF

1. Indications for the procedure (Include physical status, diagnosis)

\* [Redacted]

2. Treatment Plans: Planned

\* [Redacted]

## Plan for sedation

- ☐ None required.
- ☐ Anesthesia Service

VA Form 10-62 (664)

- ☐ To be provided by

a. ASA classification

For classification purpose

Class 1 Healthy patient,

Class 2 Mild systemic disease

- Medicine Resident Note
- Musculoskeletal Consult
- Non-Formulary Drug Consult
- Notice Of Computer Downtime

Template

Encounter

New Note

This note is required to document the discussion that the provider held with the patient/surrogate for informed consent for procedures/treatments that:

- a) require sedation, narcotic analgesic, or anesthesia,
- b) produce significant discomfort and/or
- c) have significant risk of complication or morbidity.

1. Indications for the procedure/treatment:  
Hemoptysis with life-threatening hypoxia

2. Treatment Plans: Planned procedure/treatment:

Bronchoscopy

Plan for sedation

- ☐ None required.
- ☐ Anesthesia Service to provide (see Preanesthetic Summary)
- ☒ To be provided by physician/dentist.
  - a. ASA classification: Class 3E
  - b. Planned sedation:  
Intravenous midazolam and fentanyl

3. Decision Making Capacity:

I have assessed the patient's decision-making capacity by evaluating the patient's ability to understand and appreciate the nature and consequences of the proposed and alternative treatment options and formulate and communicate a healthcare decision.

The patient:

- ☐ has decision-making capacity and was alert.
- ☒ does not have decision-making capacity \*and will not regain decision-making capacity within a reasonable period of time because of: sedation
- ☐ is under court-appointed conservatorship.
- ☐ does not have decision-making capacity due to mental illness.

4. Discussion of Informed Consent:

- The discussion of informed consent with patient/surrogate took place at: Nov 7, 2006
- Persons (other than provider, and the patient and/or surrogate) present at the discussion and their relationship to the patient:  
Spouse, Mary Test Patient
- The indication, risks, benefits and alternatives to the procedure/treatment, as detailed on the form entitled Informed Consent for Procedures/Treatments and/or Administration of Anesthesia, were discussed and the patient/surrogate indicated wishes to proceed.

5. Supervision:

The Attending Physician responsible for supervising this procedure/treatment is Dr. Robert Smith

P/-increase pain medication, decrease tidal volume, ensure pt not overbreathing.

Postings  
WAD

erg, M.D. (Nov 04,06@14

Location

5SICUMED

5SICUMED

5SICUMED

5SICUMED

5SICUMED

5SICUMED

5SICUMED

4, 2006@14:21:19

LETED

care fellow. Lal

had episode of as

ame agitated c/o

tv 400 40% abg 7

ti peak 1.25 now

ance, Fever gone

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Ti leak, non-spe

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re.



## Reminder Resolution: Colorectal Cancer Screening needed

Colorectal cancer screening is recommended for all patients age 50 and above. Screening may be accomplished by fecal occult blood testing on a yearly basis, flexible sigmoidoscopy every five years, colonoscopy every ten years, or a combination of these. Any individuals with visual impairment sufficient to prevent accurate completion of FOBT testing should be referred for colonoscopy as the preferred screening modality.

Document prior colorectal cancer screening.

- ☒ Document fecal occult blood testing performed previously (three separate samples within one year). Entering this data satisfies this reminder for one year from the date of the testing.

Exam Result: (None selected) Date of last sample: \* 2006 ...

Location: Comment:

- ☐ Document diagnostic flexible sigmoidoscopy done previously at this or another facility. Entering this information satisfies this reminder for five years from the date of the study.
- ☐ Document diagnostic colonoscopy done previously at this or another facility. Entering this information satisfies this reminder for ten years from the date of the study.

Modify how the Colorectal Cancer Screening Reminder works for this patient:

- ☐ Document limited life expectancy (less than six months). Selection of this health factor will inactivate many reminders for preventive health measures (including this one).
- ☐ Document a family history of early onset (before age 55) colorectal malignancy in a

Clear

Clinical Maint

Visit Info

&lt; Back

Next &gt;

Finish

Cancel

Clinical Reminder Activity

**Colorectal Cancer Screening needed:****Serial Fecal occult blood testing was done previously from three separate samples.**

Date of last sample: 2006

Examinations: FECAL OCCULT BLOOD (OUTSIDEx3) (Historical)

\* Indicates a Required Field

New Note



## Lab Results

Most Recent  
 Cumulative  
 All Tests By Date  
 Selected Tests By Date  
**Worksheet**

Graph  
 Microbiology  
 Anatomic Pathology  
 Blood Bank  
 Lab Status

## Laboratory Results - Worksheet - One Week

Table Format  
☒ Horizontal ☐ Vertical

Other Formats  
☐ Comments ☒ Graph

☐ Abnormal Results Only

☐ Zoom

☐ 3D

☐ Values

Date/Time	Specimen	WBC	HGB	HCT	PLT	SEGS	LYMPHS	MONOS	GLU
11/03/06 12:30	Blood	12.3 H	9.6 L	29.0 L	119 L				
11/03/06 12:30	Serum **								160 H
11/03/06 06:00	Serum **								77
11/03/06 06:00	Blood **	14.9 H	9.8 L	29.6 L	123 L	81.8 H	6.1 L	11.0 H	
11/02/06 13:30	Serum **								212 H
11/02/06 13:30	Blood **	16.8 H	10.6 L	31.5 L	127 L	86.4 H	5.1 L	8.2	

Wbc (Blood)

Hgb (Blood)

Hct (Blood)

Plt (Blood)

Segs (Blood)

Lymphs (Blood)

Monos (Blood)

Glucose (Serum)

Blood Urea Nitroge

Creatinine (Urine)

Creatinine (Serum)

Sodium (Urine)

Sodium (Serum)

Potassium (Urine)

Potassium (Serum)

Chloride (Urine)

Chloride (Serum)

Co2 (Serum)

Other Tests

## Date Range

Date Range...

Today

**One Week**

Two Weeks

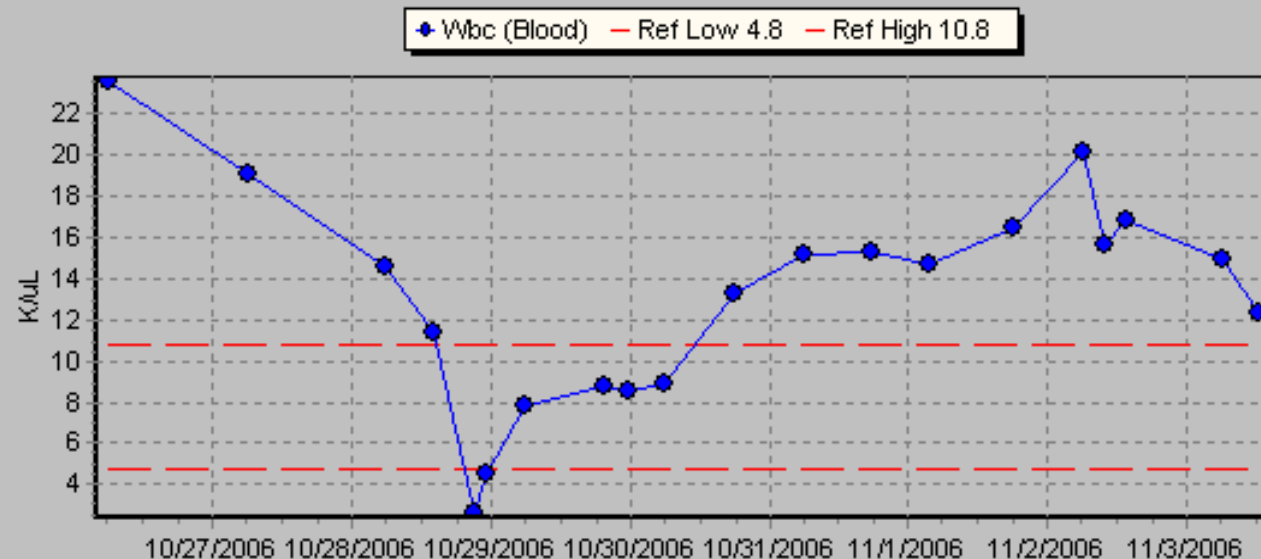
One Month

Six Months

One Year

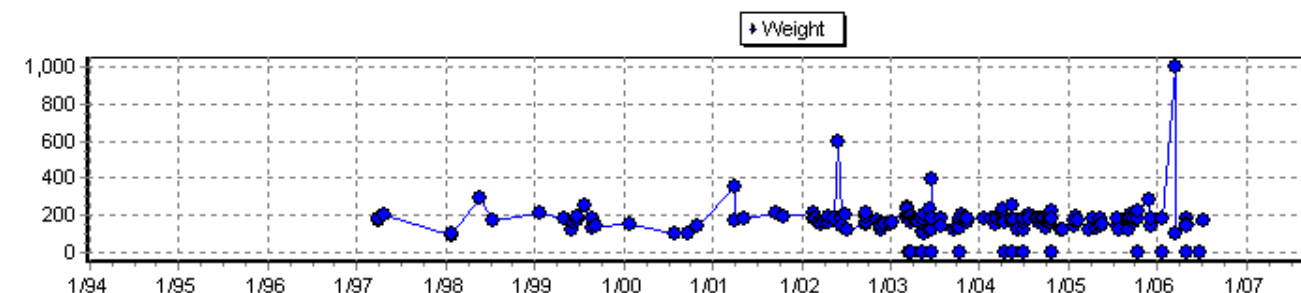
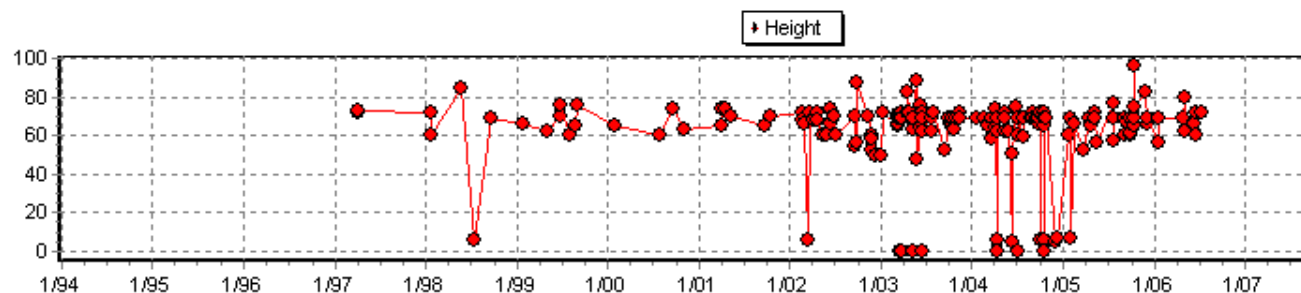
Two Years

All Results



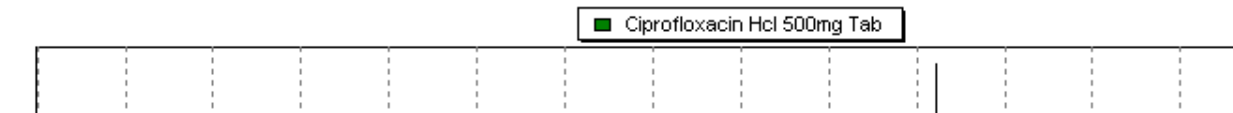
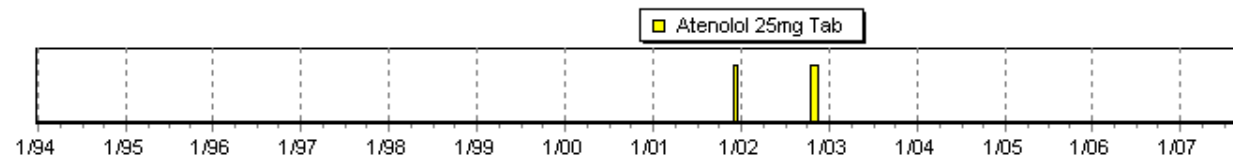
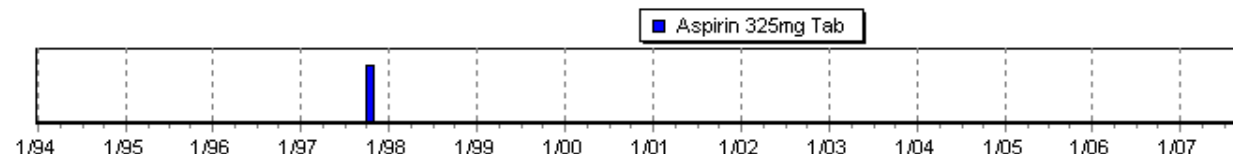
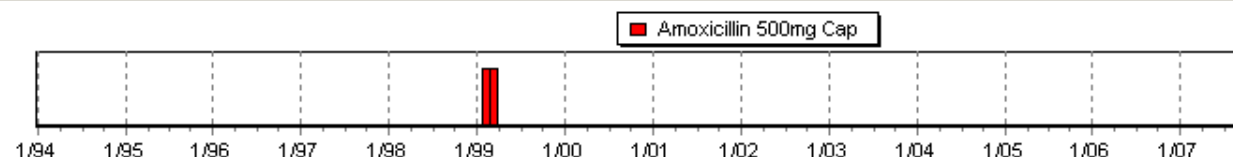
View: Individual Graphs ☒

Item	Type	View
Zzred Triage-Rn	Visits	
Zzred/Md Followup	Visits	
Zzsame Day Procedures	Visits	
Zzyell Sharma P	Visits	
Zzyellow Amigable	Visits	
Zzyellow Ayers	Visits	
Zzyellow Triage-Rn	Visits	
Zzyellow-Olexo	Visits	
Blood Pressure	Vitals	
Circumference/Girth	Vitals	
Height	Vitals	
Pain	Vitals	
Pulse	Vitals	
Pulse Oximetry	Vitals	
Respiration	Vitals	
Temperature	Vitals	
Weight	Vitals	



View: Individual Graphs ☒

Item	Type	View
Amoxicillin 500mg Cap	Medication, Outpa...	
Aspirin 325mg Buffered ...	Medication, Outpa...	
Aspirin 325mg Ec Tab	Medication, Outpa...	
Aspirin 325mg Tab	Medication, Outpa...	
Atenolol 25mg Tab	Medication, Outpa...	
Beclomethasone 40mcg(...)	Medication, Outpa...	
Bupirone Hcl 5mg Tab	Medication, Outpa...	
Carbamazepine (tegreto)	Medication, Outpa...	
Carbidopa 25/Levodopa...	Medication, Outpa...	
Catheter, Rob-Nel 10fr	Medication, Outpa...	
Catheter, Rob-Nel 12fr	Medication, Outpa...	
Catheter, Rob-Nel 14fr	Medication, Outpa...	
Catheter, Rob-Nel 16fr	Medication, Outpa...	
Cephalexin 250mg Cap	Medication, Outpa...	
Ciprofloxacin Hcl 500mg ...	Medication, Outpa...	
Clonidine Hcl 0.1mg Tab	Medication, Outpa...	
Clonidine Hcl 0.3mg Tab	Medication, Outpa...	
Divalproex 250mg Ec(del...	Medication, Outpa...	



Date Range: All Results

☒ Split Views

Select/Define...

Settings...

Close

Individual Graphs ☐

Item

Neut #

Wbc (blood)

Wbc (pleural fluid)

Test: Blood Culture

Test: C Difficile T...

Test: Culture & Su...

Test: Mycology, B...

Albumin

Amorphous Sedim.

Anisocytosis

Appearance

Atypical Lymphs

Bands

Baso

Baso #

Baso %

Calcium

Chloride

Ck-Mb

Co2

Color

Creatinine

Digoxin

Eos #

Individual Graphs ☐

Rx: Antibiotics

Item

Ampicillin Inj

Gentamicin Inj,Solr

Metronidazole Tab

Piperacillin/Tazob.

Vancomycin Inj

Ampicillin Na 1gm...

Gentamicin Sulf 8...

Metronidazole 50...

Piperacillin 3/Taz...

Vancomycin 500...

Albumin

Notes

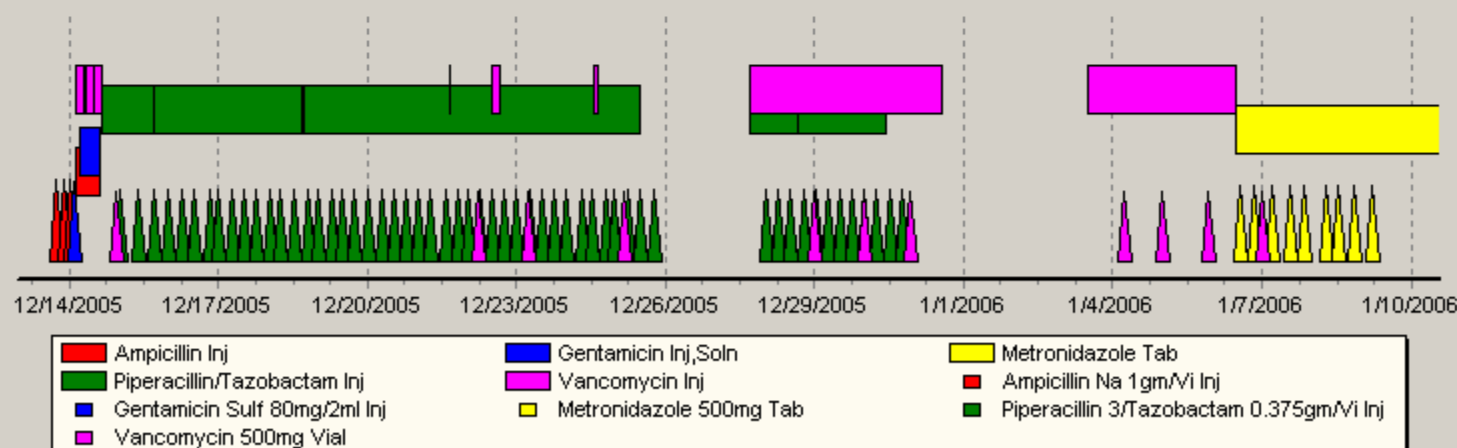
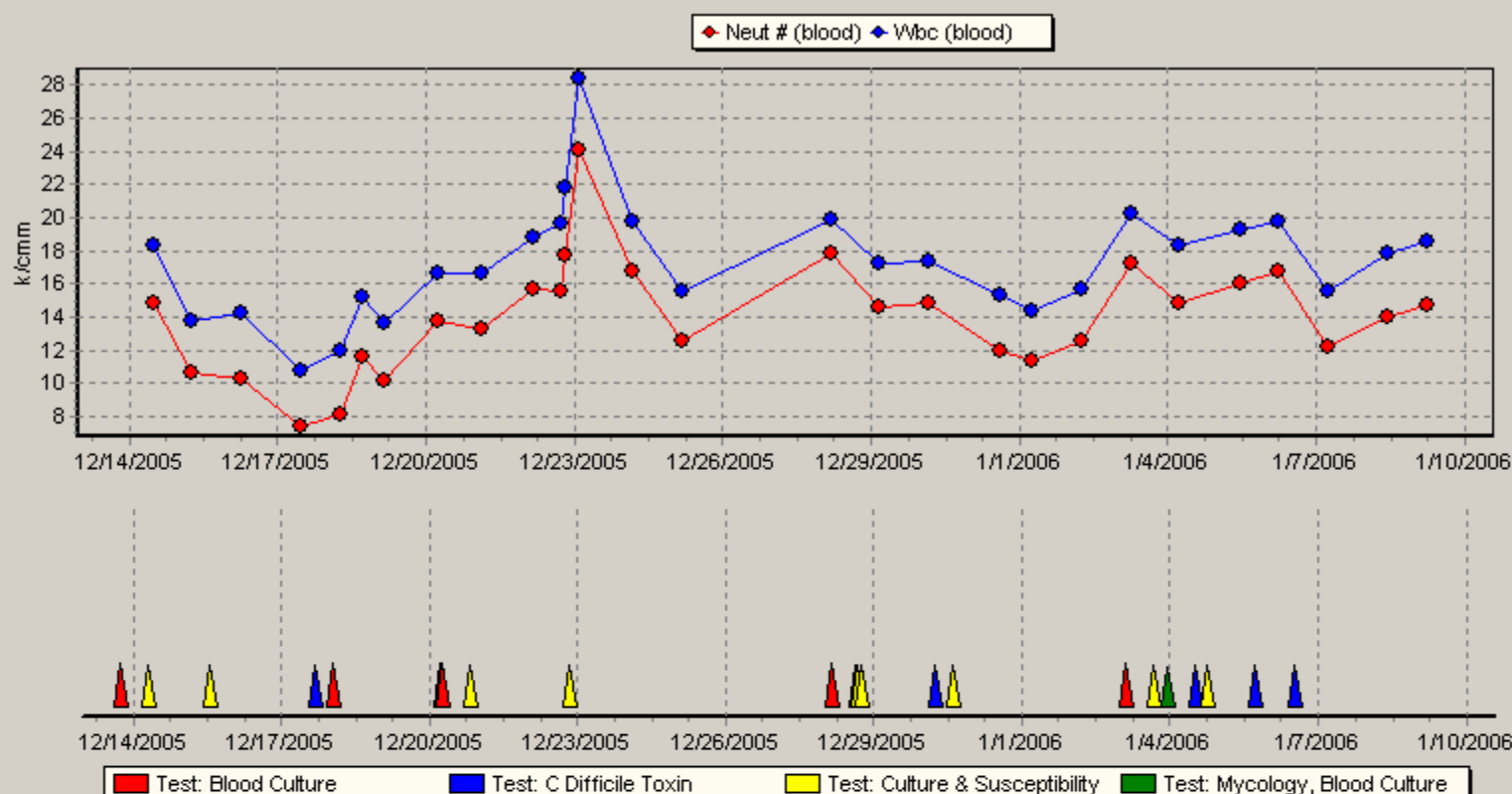
Consults

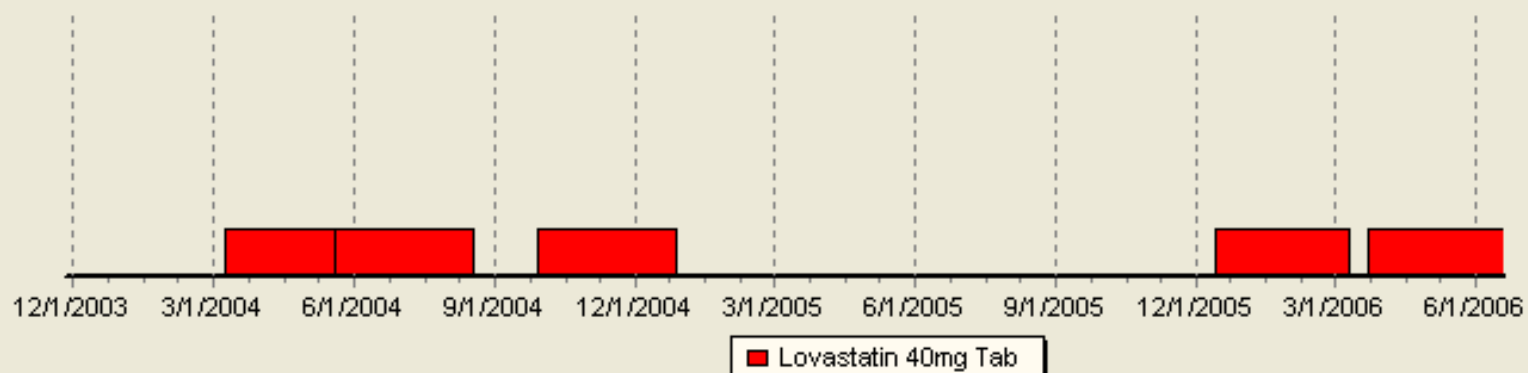
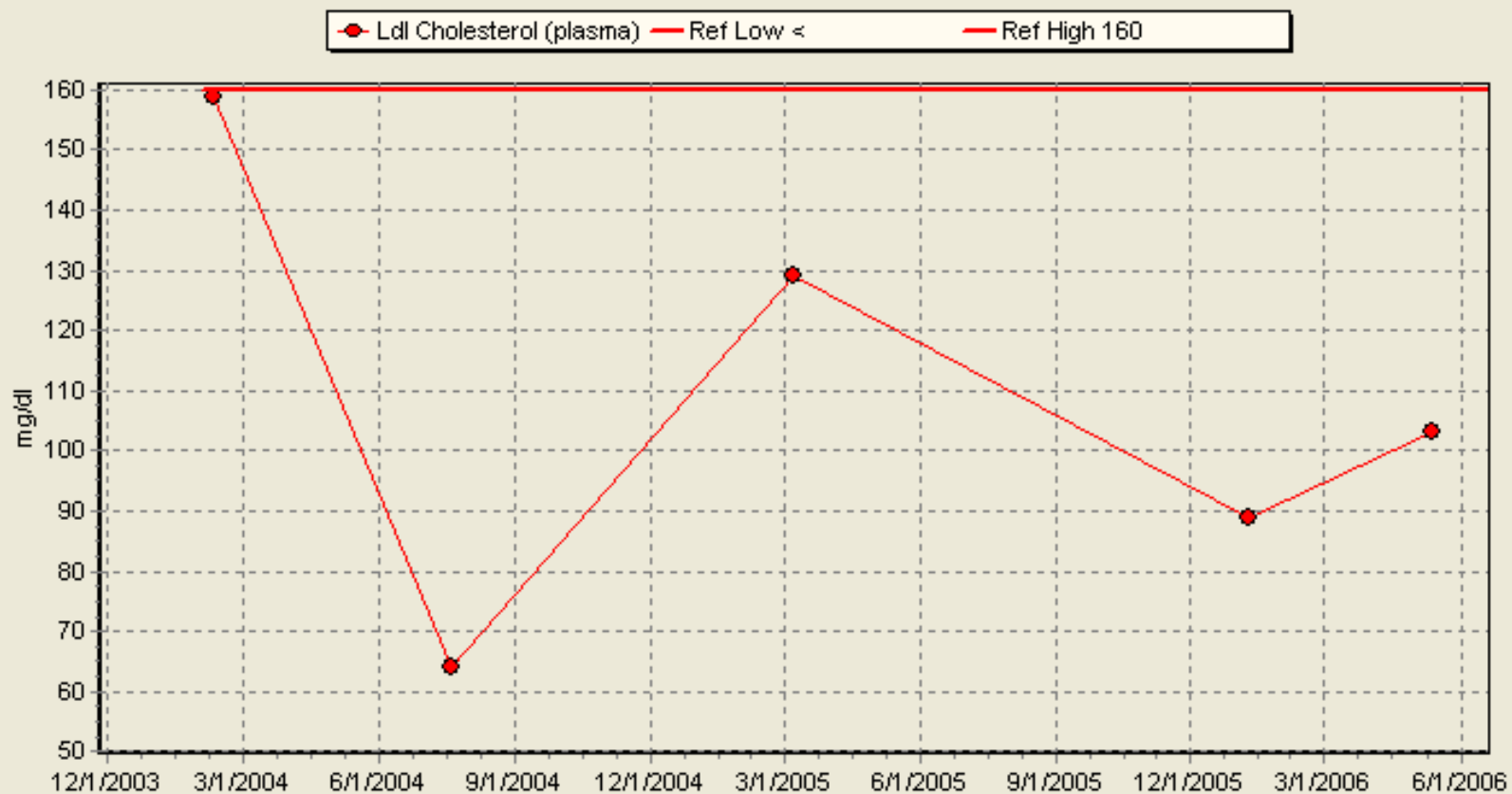
Surgery

D/C Summ

Labs

Reports







# Bar Code Medication Administration Processes

- Wireless computers/carts deployed in all inpatient areas (devices chosen with user input)
- Nurse scans wristband and validates patient identity
- Virtual Due List is displayed
- Medication is scanned and matched to the due list
- If dose is missing, an automated missing dose request can be generated
- Each medication is automatically validated for:
  - Medication ordered
  - Dosage, Route Dosage, Route
  - Timeliness
- Administrative tools used for tracking processes including timeliness of administration, etc.

# Bar Code Medication Administration

**Bar Code Medication Administration**

File View Reports Due List Tools Help

Missing Dose Medication Log Medication Admin History Allergies CPRS Med Order

DOB = 08/10/1926 (78)  
Height = 182cm, Weight = 143.00kg  
Location = 5SICUMED 5S-A5106-08

Virtual Due List Parameters:  
Start Time: 09/14@1000 Stop Time: 09/14@1200

Schedule Types:  
☒ Continuous ☐ On-Call  
☒ PRN ☐ One-Time

**ALLERGIES: fluconazole, pcn-penicillin, penicillin ADRs: codeine, phenytoin**

Status	Ver	Hsm	Ty...	Active Medication	Dosage	Route	Admin Time	Last Action
	HPJ		P	ACETAMINOPHEN SOLN,ORAL ACETAMINOPHEN 650MG/20.3ML SOLN U/D For mild fever/pain.NTE: 4000mg of acetaminophen /day	650MG/20.3ML, Q4H PRN	NGT		GIVEN: 09/12/20...
	HPJ		P	ALAMAG PLUS (MAX DOSE 30ML) SUSP,ORAL ALAMAG PLUS SUSP 30ML U/D	30MLS, Q8H PRN	G TUBE		
	HPJ		P	LACTULOSE SYRUP LACTULOSE SYRUP 30ML U/D constipation	20GM/30ML, Q8H PRN	G TUBE		GIVEN: 08/24/20...
	HPJ		P	LORAZEPAM TAB LORAZEPAM 0.5MG TAB U/D (CIV) Before trach collar trial as needed for anxiety/agitation; may repeat x 1	0.5MG, Q6H PRN	J TUBE		GIVEN: 09/13/20...
	R...		C	METHYLPHENIDATE (CII) TAB METHYLPHENIDATE 2.5MG T U/D Please give at 0900 and 1200.	2.5MG, BID	PO	09/14@1200	GIVEN: 09/14/20...

☒ Unit Dose ☒ IVP/IVPB ☐ IV

Scanner Status: **Ready**

Scan Medication Bar Code:

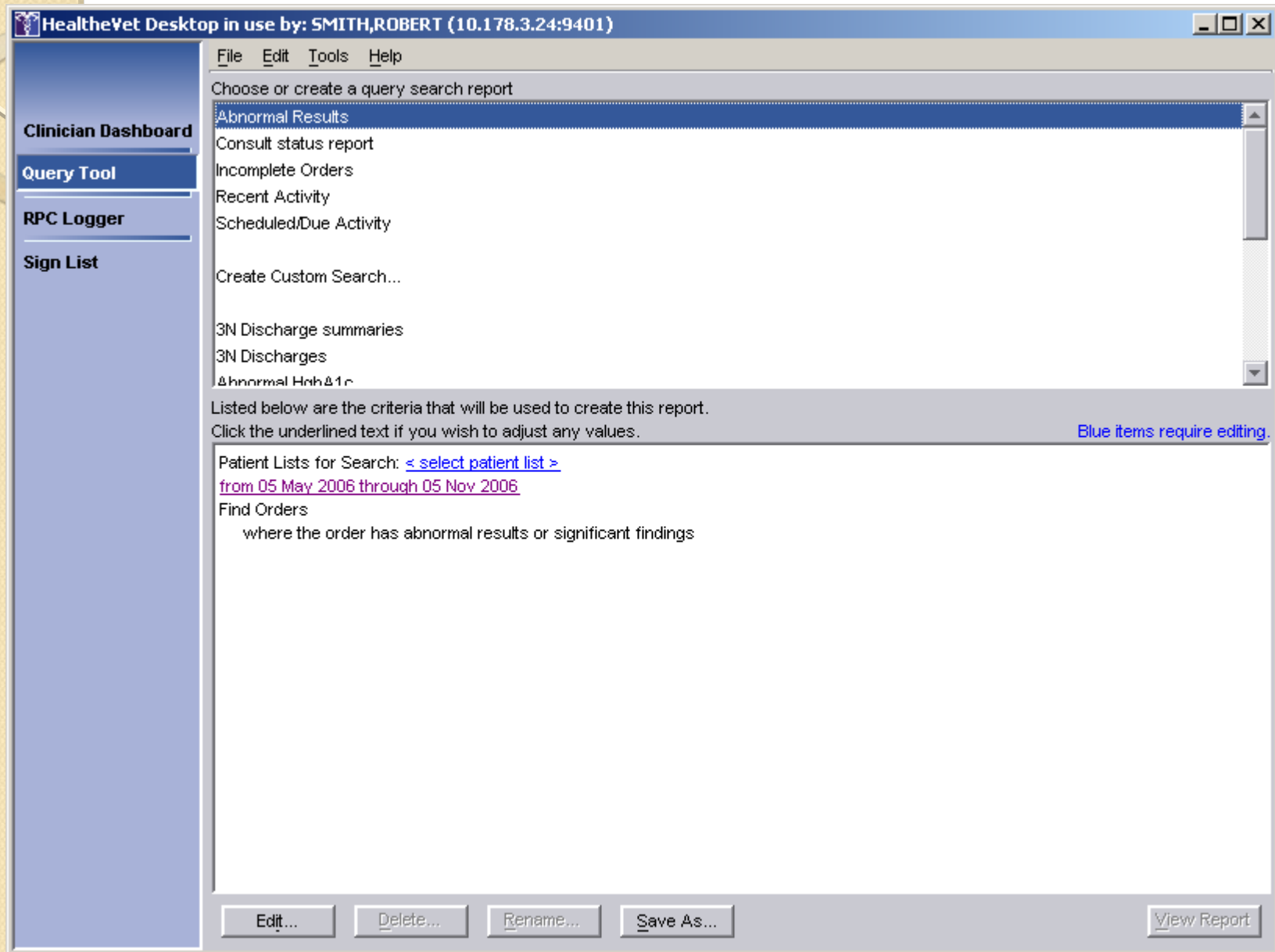
BCMA Clinical Reminders

Count	Activity
0	PRN Effectiveness

SMITH,ROBERT M SAN DIEGO HCS Server Time: 09/14/2004 11:30

1. Scan the Wristband
2. Scan the medication
3. Automatic match to virtual "due" list against correct medication, time, dose, and route with audible and visual confirmation of appropriateness of administration.

# Panel Management Tools





# Integrated Technology Projects

- VistA Imaging (scanned images; ECGs, endoscopy and other clinical images) available at any workstation
- Full PACS implementation with radiology, nuclear medicine, and ultrasound images available on-line at any work-station
- Full interconnectivity of all local VA facilities
- Access to clinical records from any VA facility nationwide
- Off-site access to full suite of clinical applications for on-call MD staff

1 COLON 7/28/57  
COL 07/28/1937

2 X-RAY CHEST SINGLE  
GEN. MED. 07/28/1937

3 012757-22 ANGIO Vis  
XRAY 07/27/1937--Gros

4 012757-21 GASTROINT  
XRAY 07/27/1937--Gros

5 SIGMOID COLON DIVER  
COL 12/24/1932--Grosop

6 BLEEDING SCAN FOR P  
GEN. MED. 12/24/1932

Radiology Exam listing : MADTL,F F

Radiology Exams: MADTL,F F

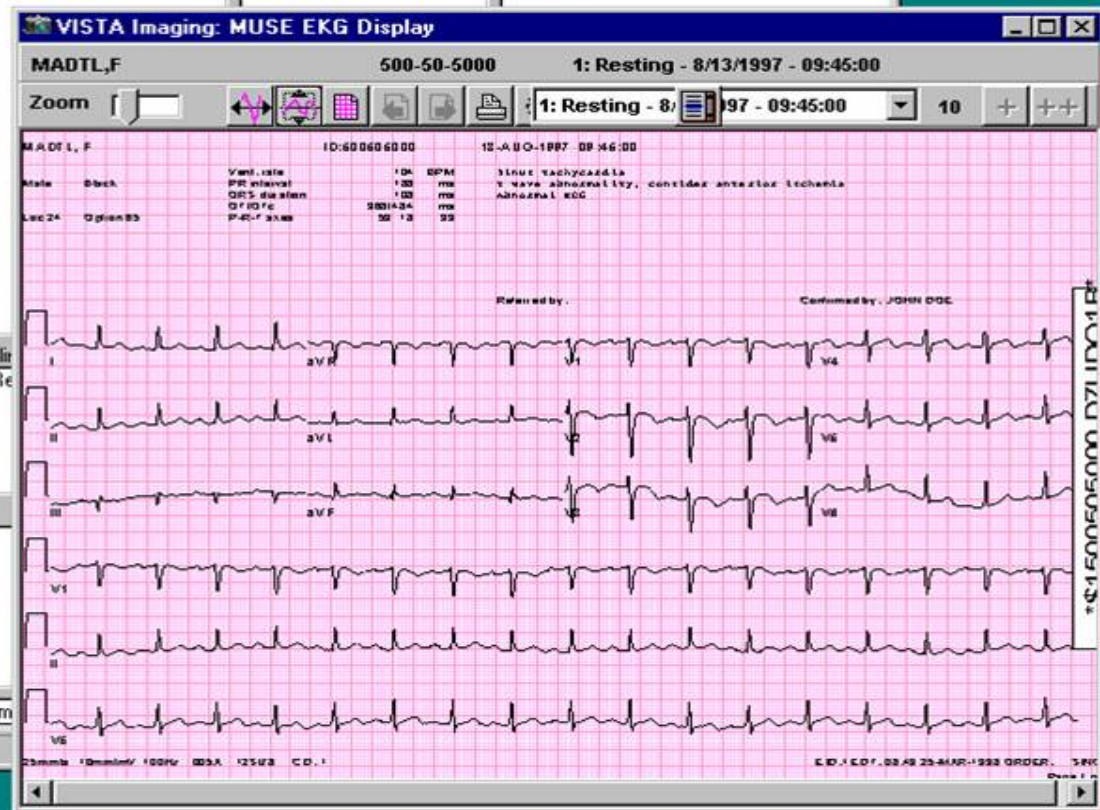
#	Day-Case	Procedure	Exam Date
1	113098-35	CHEST SINGLE VIEW	1998 - 11/30
2	113098-34	ABDOMEN 1 VIEW	1998 - 11/30
3	072897-30	CHEST SINGLE VIEW	1997 - 07/28
4	072797-22	ANGIO VISCERAL SELECT CP	1997 - 07/27

Primary Care Team Unassigned

DRN Data

Postings  
A

Allergies / Adverse Reaction Postings	
Penicillin	Allergies



## 2003

CALIFORNIA

## Hospital Heeds Doctors, Suspends Use of Software

- Cedars-Sinai physicians entered prescriptions and other orders in it, but called it unsafe.

Cedars-Sinai Medical Center, the largest private hospital in the West, is suspending use of a multimillion-dollar computerized system for doctors' orders after hundreds of physicians complained that it was endangering patient safety and required too much work.

Ironically, the computer software was designed to do the opposite: Reduce medical errors, allow doctors to track orders electronically, and warn them about dangerous drug interactions and redundant laboratory work.

But, from the start of its rollout in October, the Patient Care Expert program, dubbed PCX, has been plagued with problems, many doctors said. ...

...This week, Cedars-Sinai suspended the ordering system after more than 400 physicians confronted hospital administrators at a tense staff meeting Friday. The doctors voted nearly unanimously to urge the hospital to halt the system until the problems are fixed.

More than a dozen Cedars-Sinai physicians interviewed by The Times said they experienced problems ordering medication, tests and supplies using the PCX software. One patient with heart failure did not receive the pills his physician ordered until he mentioned it to a nurse. Another patient did not receive a walker until three days after it was ordered. A baby was given local anesthetic for a circumcision one day early.

# Tools for efficient retrieval of information: order display groups

Vista CPRS in use by: Smith, Robert M (vista.san-diego.med.va.gov)

File Edit View Action Options Tools Help

TESTPATIENT, SUS 000-00-9988 Dec 09

Order Sheet  
All Services, Active  
Admit...

Write Orders  
Outpatient Medication  
Outpatient Menu  
ALLERGY  
CONSULTS  
Diet  
Lab  
IMAGING  
Inpatient Medications  
Inpatient Menu  
ADTP  
ECU  
ICU  
Medicine  
Psychiatric  
SCI  
Surgery  
CAC Testing Outpatient  
Vitals  
Directory

PSYCH ADMISSION MENU...

- 0 Admission Order Set
- 1 Adm/Trans/Tx Spec/Obs
- 2 Diagnosis
- 3 Resident Physician
- 4 Update Providers Same Spec.
- 5 Legal Status
- 6 Level status
- 7 Code Status (Attn)
- 8 Consent for psych
- 9 ALLERGY/ADVEF
- 10 VitalSigns: Routine
- 11 Vital signs - other (I
- 20 Activity ON WARD
- 21 Activity ON WARD
- 22 Activities OFF WAI
- 23 Safety Precautions
- 24 Restraints/Seclusi

37 Resp/Oxygen...

40 Diet...

50 Psych Inpatient Medications...

60 Imaging (Radiolog)

Postings  
WD

Sts  
active

PRE SECLUSION

Order: Place pt in: RESTRAINTS

Date/Time placed in restraints/seclusion: May 23, 2000@16:33

DANGER TO SELF (yes/no)? Yes

DANGER TO OTHERS (yes/no)? No

Place patient in: RESTRAINTS NOT TO EXCEED 4 HOURS. Danger to self?  
Yes Danger to others?  
No Date/time placed in restraints/seclusion:

Accept Order  
Quit

Cover Sheet Problems Meds Orders Notes Consults D/C Summ Labs Reports



**Patient Record Flags**

Active Flag

**CONSERVATORSHIP STATUS**

---

Flag Name: CONSERVATORSHIP STATUS

Assignment Narrative:  
 This patient has a permanent conservatorship. The appointed conservator is Jane Q. Citizen, the patients niece. Ms. Citizen can be reached at:  
 (858) 555-1212 x 12134 (work)  
 (858) 555-1234 (home) or  
 (619) 123-4567 (cell)

Address:  
 1234 Sycamore Drive  
 Lemon Grove, CA, 92161

Flag Type: CLINICAL  
 Flag Category: II (LOCAL)  
 Assignment Status: Active  
 Initial Assigned Date: NOV 05, 2006@12:06:45  
 Approved by: PARTHEMORE, JACQUELINE G  
 Next Review Date: NOV 05, 2007  
 Owner Site: SAN DIEGO HCS  
 Originating Site: SAN DIEGO HCS

---

Signed, Linked Notes of Title: PATIENT RECORD FLAG CATEGORY II - CONSERVATORSHIP

Date	Action	Author
FEB 27, 2005@16:45	NEW ASSIGNMENT	SMITH, ROBERT M

Close

**Patient Selection**

Patient List

- ☒ Default: ICU ME
- ☐ Providers
- ☐ Team/Person
- ☐ Specialties

Notifications

I...	Patient
	BULIAHN, U (E
	BULIAHN, U (E

Process Info

Process All

Process

Forward

Remove

alog

OK

Cancel

ings

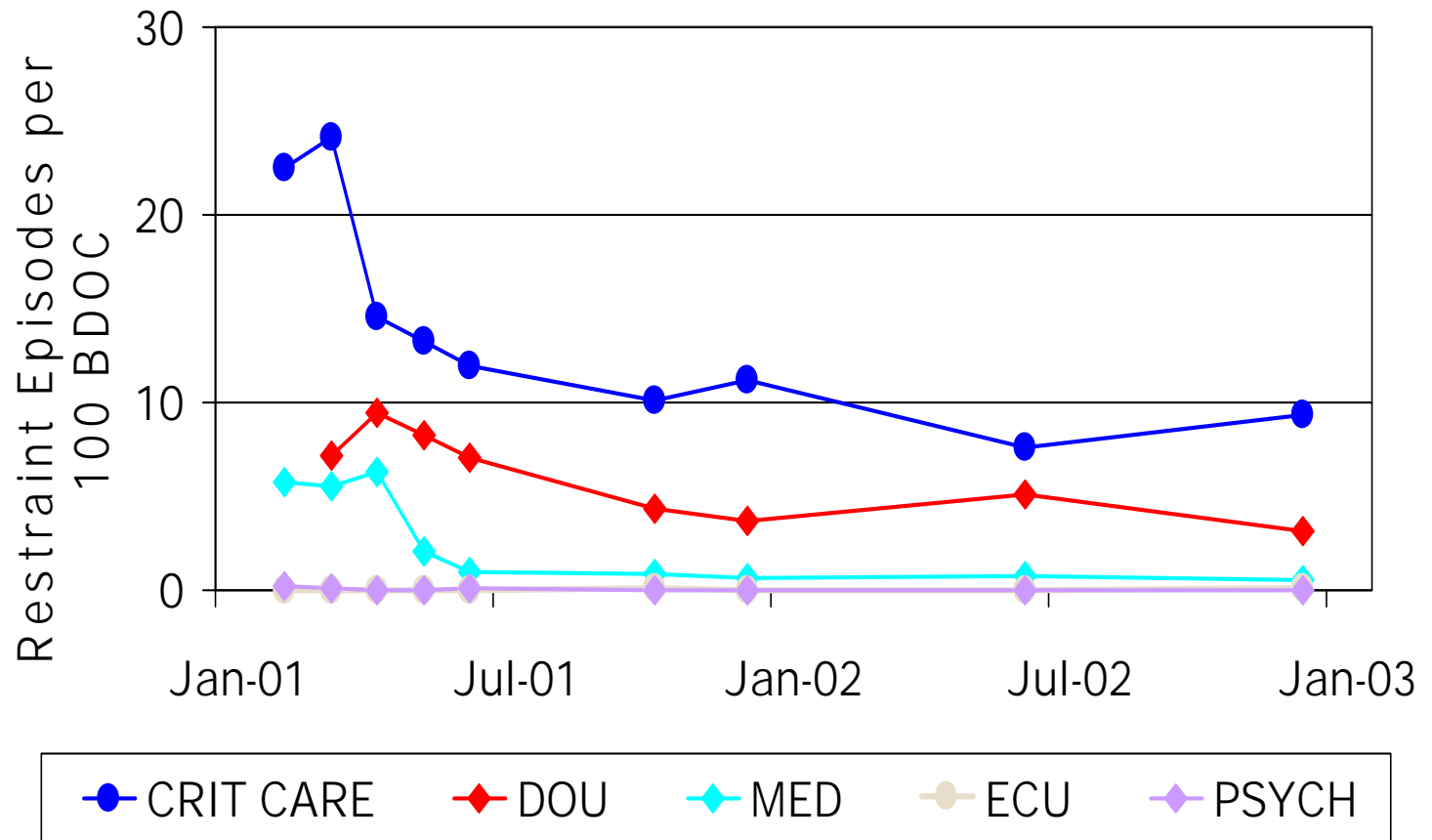
Forwarded By/When

I...



**DOES IT ACTUALLY  
HELP???**

# Restraint Use Reduction



56% overall reduction in restraint use through scripted orders, documentation templates, and automated reporting to leadership

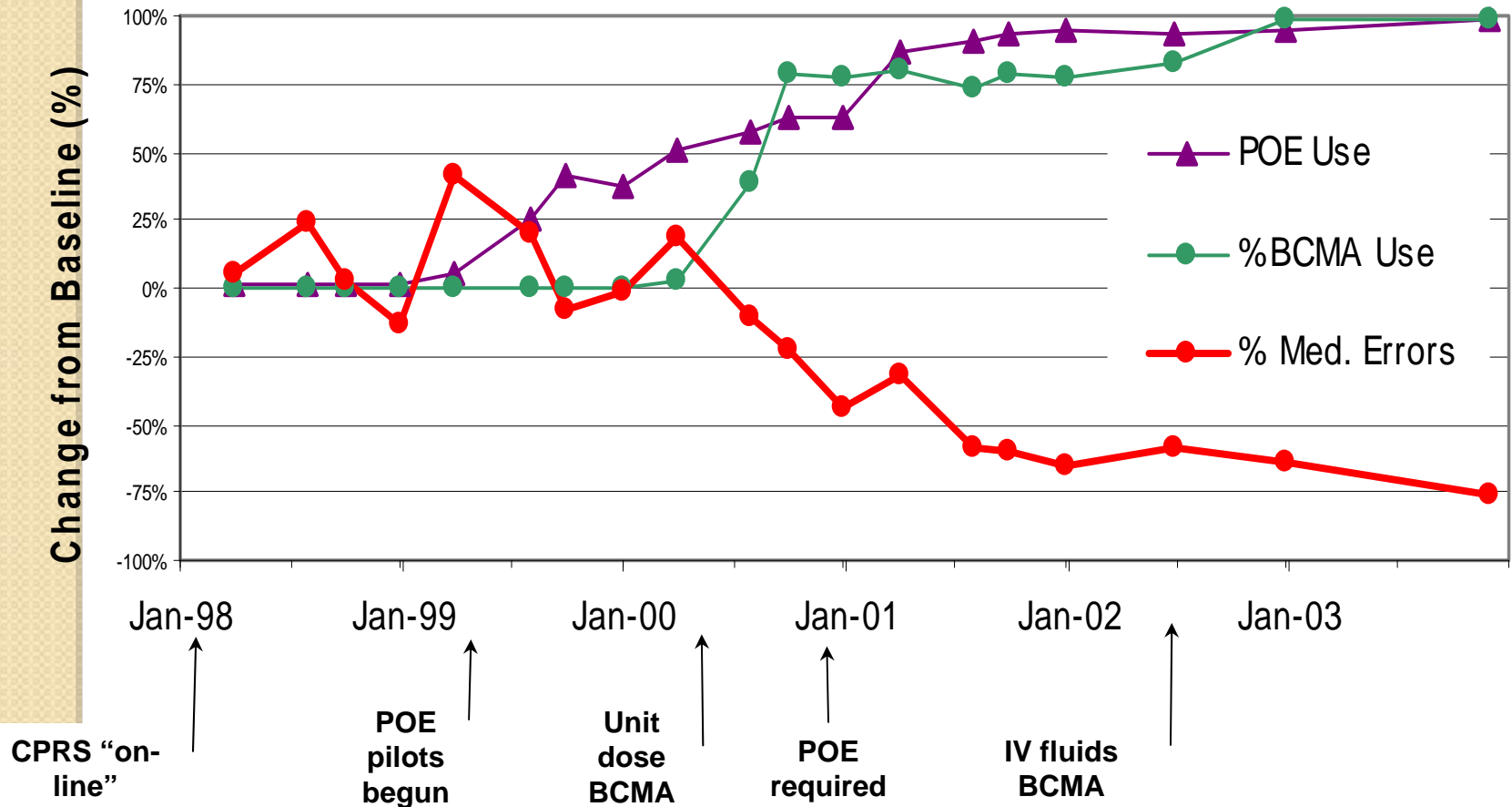


# Sample daily report for managers:

Restraint / Seclusion / DNR Report (last 72 hrs)					
Date/Time Report Run: MAR 13,2003@15:21:40					
PATIENT NAME	L4SSN	ROOM Bed#	TOT HRS	ORDER ACTIVE?	# ORDERS
RESTRAINTS (PSYCHIATRIC)					
PATIENT, 11	7042	2S-B2166-08	4	N	1
PATIENT, 3	9384	2S-B2170-10P	14	N	4
SECLUSION					
PATIENT, 11	7042	2S-B2166-08	4	N	1
PATIENT, 4	9384	2S-B2170-10P	4	N	1
RESTRAINTS (NON-PSYCH)					
PATIENT, 16	4227	3N-B3349-12	18	N	1
PATIENT, 14	5910	5E-C5244-09	37	Y	2
PATIENT, 7	0110	5S-A5106-01	24	Y	1
PATIENT, 12	3168	5S-A5106-04	24	Y	1
PATIENT, 6	6889	5S-A5106-08	24	Y	1
PATIENT, 15	0633	5S-A5106-10	52	Y	3
PATIENT, 0	9354	5S-A5106-11	67	Y	3
PATIENT, 1	7946	5S-A5106-13	180	Y	8
PATIENT, 8	1201	5S-A5106-14	66	Y	3
PATIENT, 5	1592	5S-A5106-15	24	Y	1
PATIENT, 13	4668	5S-A5106-18	59	Y	3
PATIENT, 2	1691	5S-D5172-27	48	Y	2
ACTIVE DNR ORDERS			ORDERING PROVIDER	TITLE	
PATIENT, 0	2999	3N-C3372-13	Doctor one	STAFF PHYSICIAN	
PATIENT, 17	0990	4S-C4145-06	Doctor two	STAFF PHYSICIAN	
PATIENT, 9	4818	1E-B1109-01	Doctor three	RESIDENT PHYSICIAN	

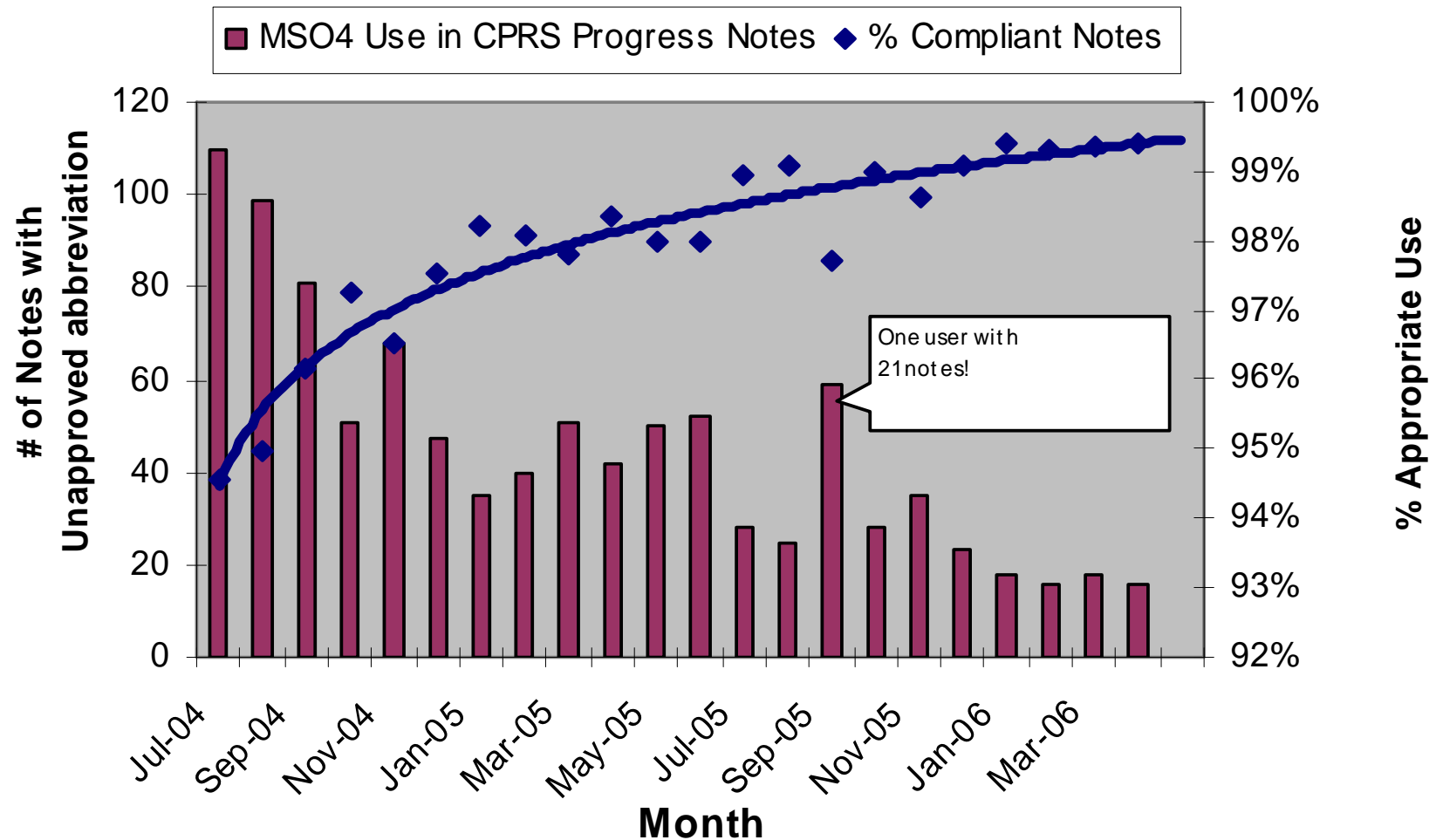
# VASDHS: Reduction in Med. Errors

Impact of Systems Changes on Medication Errors



# JCAHO Compliance

## Use of Unapproved abbreviations in CPRS Notes



# Point-of-Care Reminders to Influence MD Behaviors

- Prompt providers when important health measures are needed for patients
  - Reports available to verify diagnoses; verify appropriate treatment given; identify patients requiring intervention; validate effectiveness of care
  - Data can be aggregated at the facility or national level with the use of standard terminology, thus allowing preventive health measures to be aggregated and compared
- Prompts for care are linked to structured data-entry tools
- Data is recorded for aggregated (and individual) reporting

# HIV Screening and Testing for At-Risk Populations

**Reminder Resolution: Screen for HIV Infection**

This reminder is displayed when the medical record indicates that the patient has any one of the following: evidence of current or prior Hepatitis B or Hepatitis C infection, risk behaviors for Hepatitis C, prior STDs, or a diagnosis of a drug use disorder.

☒ **Order HIV Serology (consent required)**  
[Consent form for HIV Testing](#)

☒ **Previously tested for HIV**

☐ Prior HIV serology negative

☒ Prior HIV serology positive Date: \*   2005  ...

Comment:

☐ Refuses HIV testing

☐ Patient unable to provide consent for HIV testing

---

EVALUATE FOR TESTING FOR OTHER CHRONIC VIRAL INFECTIONS

HEPATITIS B TESTING

☐ Order Hepatitis B profile

☐ Outside Hepatitis B surface antigen positive (carrier)  
Hep B surface Ag pos (HBsAg +)

☐ Record Outside Result - Hep B seropos (immune or prior infection)  
Hepatitis B core antibody positive (HBcAb +) or  
Hepatitis B surface antibody positive (HBsAb +)

☐ Record Outside Result - Hepatitis B seronegative  
Hep B core Ab neg and no prior immunization series

☒ Hepatitis B Serology Not Indicated Reason: \*

☐ Previously immunized for Hepatitis B

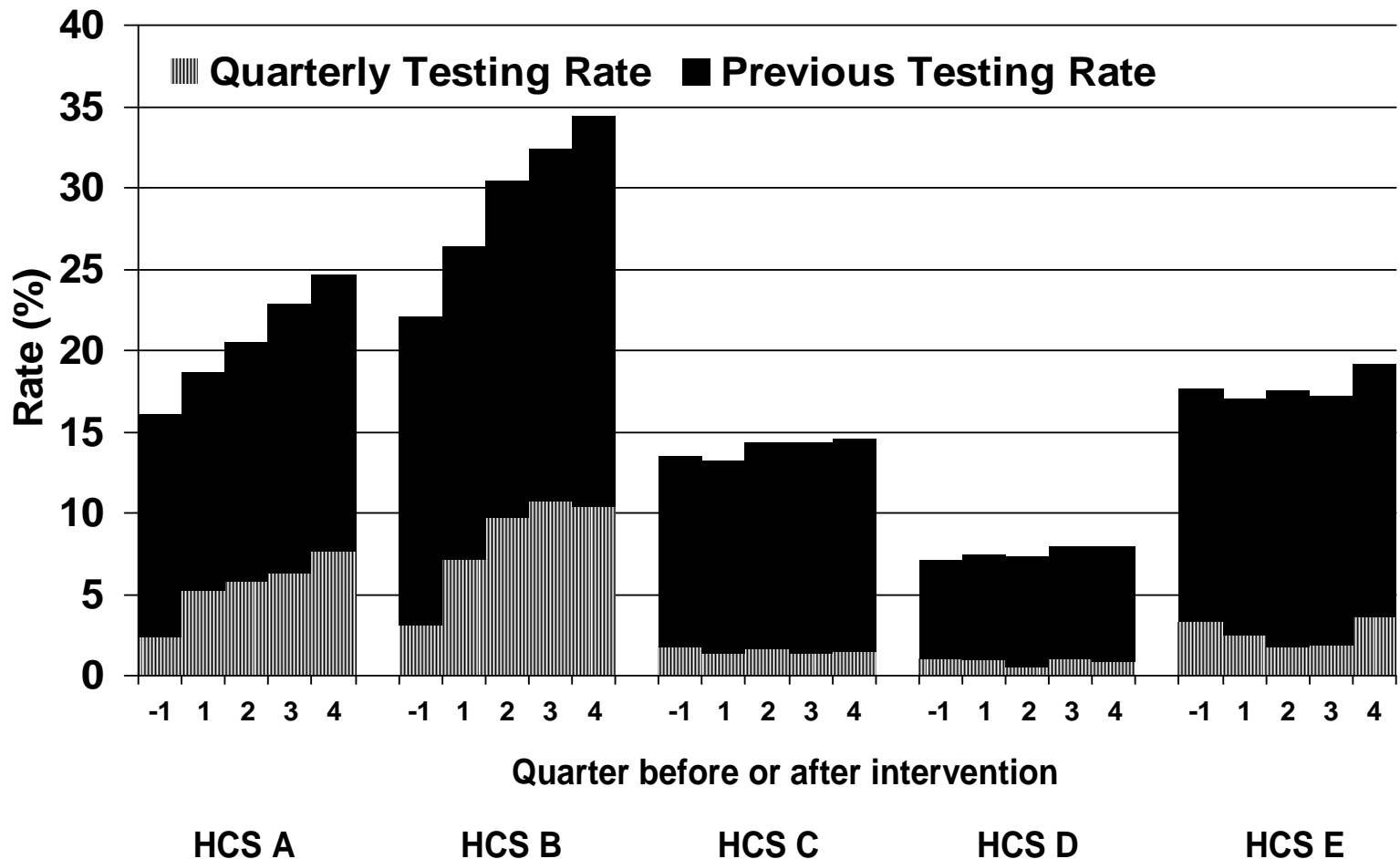
Clear Clinical Maint Visit Info < Back Next > Finish Cancel

Clinical Reminders:  
Screen for HIV Infection:  
Prior HIV serology positive  
Date: 2005  
Hepatitis B serology is not indicated at this time.

Health Factors: HEPATITIS B SEROLOGY NOT INDICATED, OUTSIDE HIV SEROLOGY POSITIVE (Historical)  
Orders: HIV (consent req)

\* Indicates a Required Field

# HIV Testing Rates





# Effect of Point-of-Care Reminders on HIV testing of at-risk patients

	Adjusted Testing rate (%) (95% CI)	
	Pre-intervention	Post-intervention
Intervention facility A	4.8 (4.2, 5.4)	10.8 (9.8, 11.8)*
Intervention facility B	5.5 (4.7, 6.6)	12.8 (11.5, 14.4)*
Control facility C	4.4 (3.8, 5.0)	4.2 (3.5, 5.2)
Control facility D	2.3 (1.8, 2.9)	2.1 (1.6, 2.7)
Control facility E	4.6 (3.6, 5.7)	5.0 (4.2, 5.9)

\* P<0.0001

# Point-of Care Prompting Must be Combined with Feedback

## Reminders Due Report - Summary

Reminders due for All Locations for 2/1/2000 to 2/29/2000

		# Patients with	
		Reminder Applicable	Reminder Due
		-----	-----
1	INFLUENZA IMMUNIZATION-SD664	6523	2498
2	PNEUMOVAX-SD664	5286	4017
3	Diabetes-Yearly Hgb A1C	2220	379
4	PSA-SD664	6168	4067
5	MAMMOGRAM(AGE 50-70)-SD664	233	168
6	No Allergies Recorded	3478	3478
7	No Entries on Problem List Recorded	1890	1890

Report run on 10036 patients.

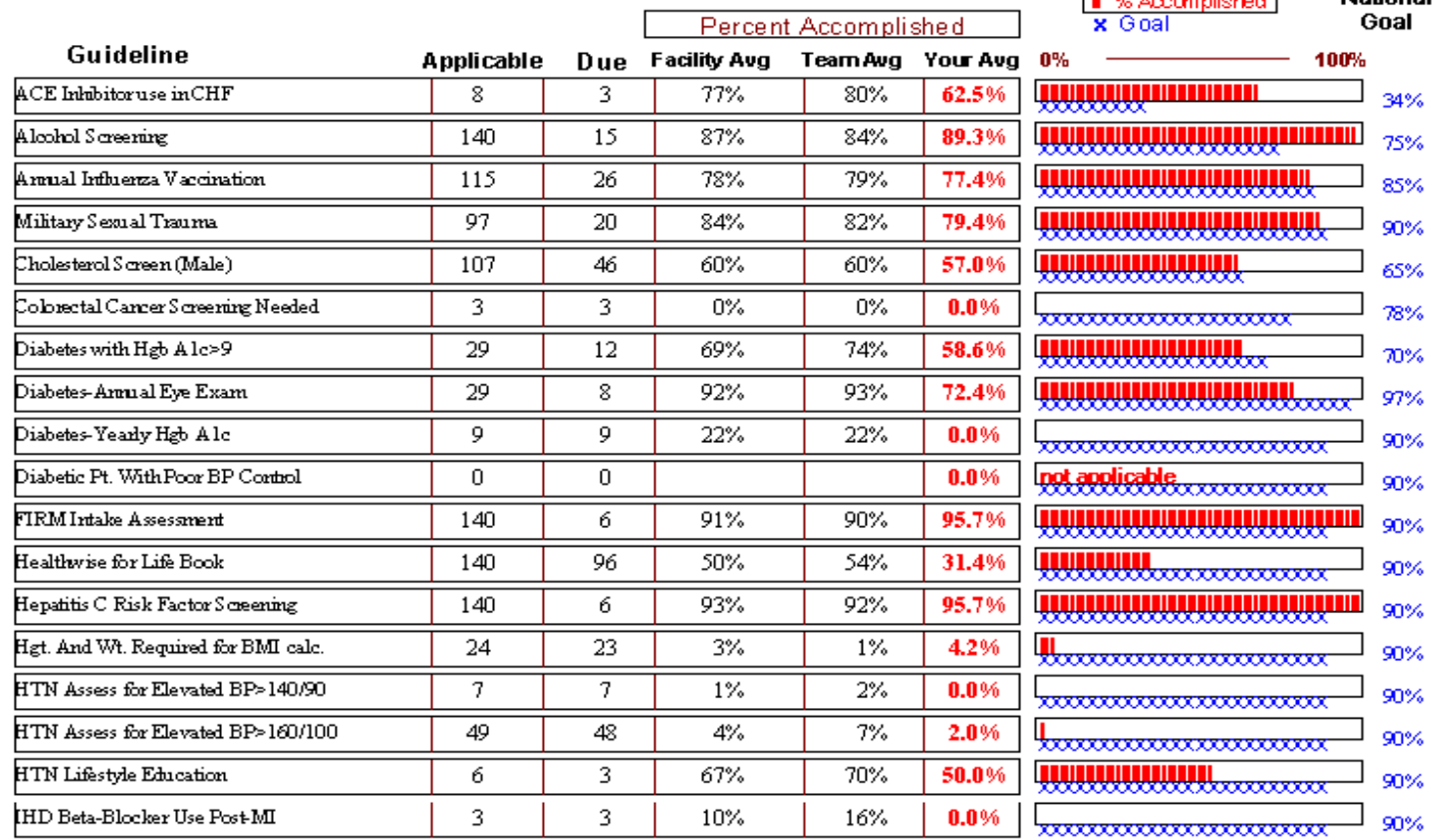
# Reminder Reporting can be used for targeted provider-specific feedback

## Clinical Reminders Completed

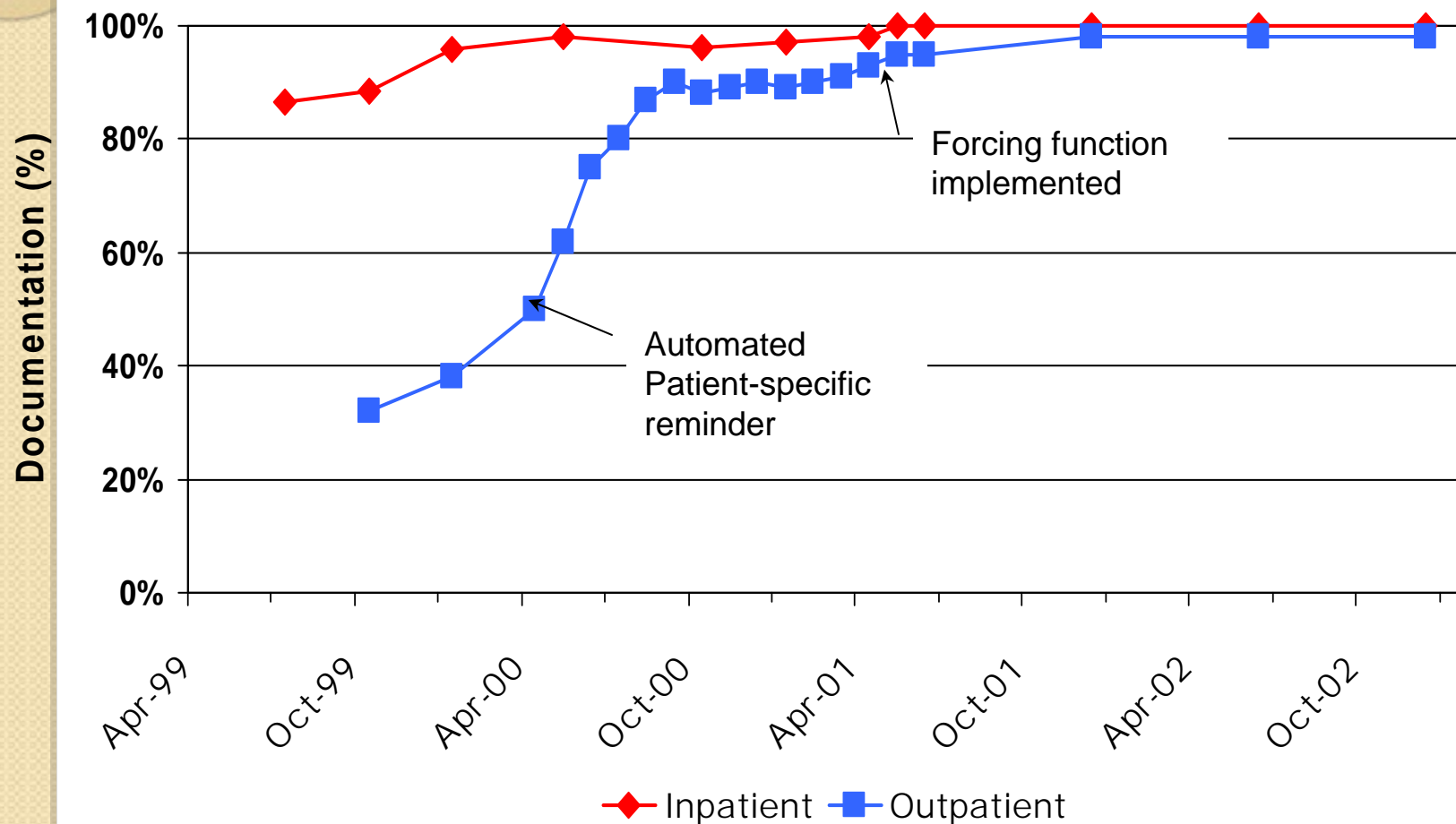
Period Reviewed: 06/01/2002

Provider Name: Marcus Welby

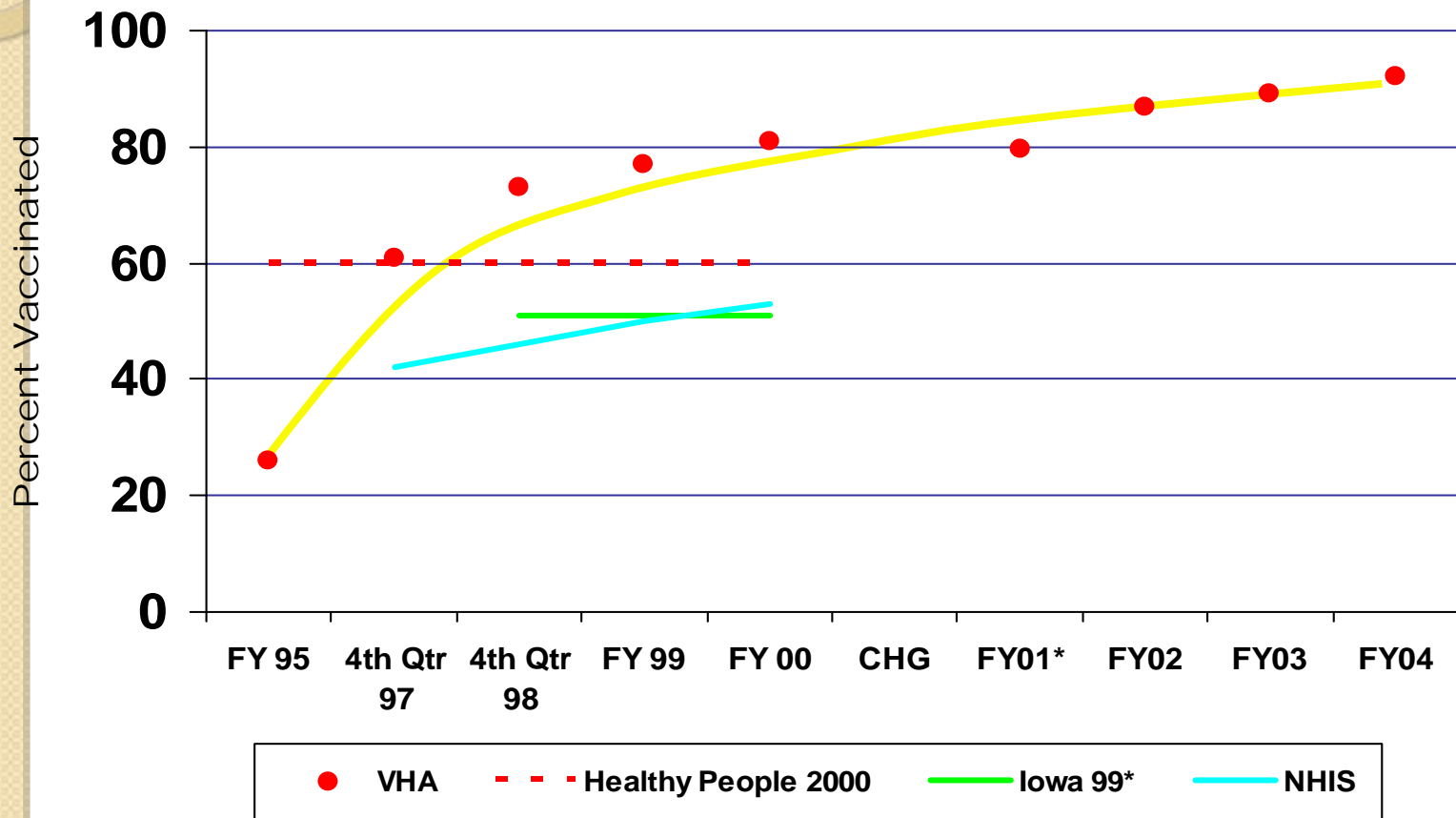
Location/Team: BLUE



# Allergy Documentation



# Pneumococcal Vaccination Rates in VA



•Iowa: Petersen, *Med Care* 1999;37:502-9. >65/ch dz

•HHS: National Health Interview Survey, >64

**Provider Profiling in Primary Care- VA San Diego Healthcare System  
Clinical Guidelines Performance**

Nurse Practitioner: [REDACTED] Period Reviewed: 10/1/2006 to 10/31/2006

Clinic Name: LAJOLLA/FIRM/BLUE [REDACTED] Mail Code: 111N

 Performance Measure

 Above Goal:

 Below Goal:

<u>Reminder</u>	<u>Applicable</u>	<u>Percent Satisfied</u>	<u>Goal</u>
*Allergy Assessment	102	100 %	100%
*Needs Vesting Exam	101	99 %	100%
*No Primary Care Provider Assigned	102	99 %	100%
Alcohol Use Screening	102	97 %	90%
Cancer Screen - Cervical Cancer	0	N/A	85%
Cancer Screen - Colorectal Cancer	83	77 %	72%
Cancer Screen - Mammogram	0	N/A	85%
Cancer Screen - Prostate CA Counseling	61	87 %	80%
Diabetes-Annual Eye Exam	32	94 %	82%
Diabetes-Annual Foot Screen	32	81 %	80%
Diabetes-BP <140/90	32	75 %	75%
Diabetes-BP <160/100	32	100 %	93%
Diabetes-HgbA1C <11	32	97 %	93%
Diabetes-Last HgbA1C <9	32	94 %	85%
Diabetes-LDL <120	32	84 %	79%
Diabetes-Yearly Hgb A1C	32	97 %	96%
Hep C Testing for At-Risk Patients	25	96 %	90%
Hepatitis C Risk Factor Screening	96	99 %	98%
Hgt and Wt required for BMI calc.	102	98 %	95%
Hyperlipidemia Screening (non IHD)	64	98 %	94%
Hypertension Control/Intervention	78	99 %	93%
Hypertension-BP <140/90	81	65 %	75%
Hypertension-BP <160/100	81	98 %	93%
Hypertension-Lifestyle Education	52	98 %	90%
IHD Aspirin Use Post-MI	8	63 %	88%
IHD Beta-Blocker Use Post-MI	7	100 %	92%
IHD Lipid Profile	31	100 %	90%
IHD-ACE Inhibitor use in CHF	15	93 %	90%
IHD-LDL <101	31	100 %	65%
IHD-LDL <121	31	84 %	83%
IHD-LDL >120-Active Management	5	20 %	95%
Immunization-Annual Influenza Vaccination	97	63 %	80%
Immunization-Pneumococcal vaccine	77	97 %	90%
Immunization-Tetanus Immunization	102	98 %	90%
Iraq&Afghan Post-Deployment Screen	4	100 %	80%
MST Screening Report	102	97 %	85%
Positive Depression Screen Followup	9	78 %	85%
Primary Care Depression Screening	79	97 %	90%
Tobacco Cessation Counseling	8	100 %	89%
Tobacco Use Screening	29	97 %	90%

Overall Percent Satisfied = 92 %





**VA San Diego Healthcare System - Team Profiling in Primary Care**  
**Clinical Guidelines Performance**  
**FY09**  
**Team La Jolla**

*Target Performance Measures												Meets Target	Below Target
Reminder	FY09 Target	1st Qtr FY09			2nd Qtr FY09			3rd Qtr FY09			Year-to-Date Overall %		
		"Oct08"	"Nov08"	"Dec08"	"Jan09"	"Feb09"	"Mar09"	"Apr09"	"May09"	"Jun09"			
Alcohol Use Screen (AUDIT-C)	95%	95%	92%	93%	97%	98%	99%	98%	95%	99%			97%
BMI Overweight Screening/Referral	65%			30%	0%	73%	84%	95%	76%	83%			76%
Cancer Screen - Cervical Cancer	90%	94%	93%	92%	95%	97%	98%	96%	95%	97%			96%
Cancer Screen - Colorectal Cancer	79%	81%	80%	80%	83%	82%	80%	80%	80%	82%			82%
Cancer Screen - Mammogram	72%	76%	81%	68%	78%	92%	72%	77%	73%	76%			78%
Depression Screening	90%	91%	88%	90%	92%	95%	95%	95%	92%	97%			94%
Diabetes-Annual Eye Exam	88%	95%	89%	94%	95%	96%	97%	96%	95%	95%			96%
Diabetes-Annual Foot Screen	87%	82%	82%	83%	85%	91%	87%	88%	85%	88%			88%
Diabetes-BP<140/90	79%	82%	82%	82%	80%	79%	81%	76%	80%	82%			79%
Diabetes-BP<160/100	95%	98%	99%	99%	100%	99%	98%	97%	99%	98%			99%
Diabetes-HgbA1C<11	93%	96%	91%	96%	94%	95%	94%	94%	95%	91%			95%
Diabetes-Last HgbA1C<9	85%	92%	83%	90%	88%	88%	84%	86%	88%	81%			86%
Diabetes-LDL<100	67%	74%	72%	71%	69%	75%	69%	73%	72%	67%			72%
Diabetes-Yearly Hgb A1C	95%	96%	91%	96%	98%	98%	96%	98%	97%	96%			97%
Hep C Testing for At-Risk Patients	90%	92%	96%	94%	97%	95%	96%	99%	95%	99%			95%
Hepatitis C Risk Factor Screening	95%	99%	98%	99%	100%	100%	100%	100%	100%	100%			100%
Hyperlipidemia Screening (non IHD)	96%	96%	93%	96%	98%	98%	97%	97%	97%	99%			97%
Hypertension-BP<140/90	75%	73%	71%	75%	73%	72%	71%	72%	74%	77%			73%
Hypertension-BP<160/100	95%	94%	94%	95%	95%	95%	93%	94%	94%	95%			94%
IHD Aspirin Use Post-MI	92%	73%	84%	81%	90%	94%	91%	97%	87%	95%			89%
IHD Beta-Blocker Use Post-MI	98%	93%	100%	97%	99%	100%	100%	97%	98%	100%			99%
IHD-ACE Inhibitor use in CHF	95%	87%	91%	88%	94%	92%	91%	95%	91%	98%			94%
IHD-LDL<101	66%	72%	79%	68%	65%	69%	70%	63%	68%	78%			71%
IHD-LDL<161	95%	98%	98%	97%	95%	96%	96%	96%	96%	98%			97%
Immunization-Influenza	83%	66%	87%	86%	95%	97%	97%	97%	91%	99%			93%
Immunization-Pneumococcal	94%	96%	95%	96%	98%	98%	98%	98%	97%	97%			98%
Immunization-Tetanus	94%	98%	96%	98%	99%	99%	99%	100%	99%	100%			99%
Iraq&Afghan Post-Deployment Screen	95%	98%	80%	93%	96%	100%	95%	100%	94%	99%			96%
MST Screening	85%	98%	97%	98%	99%	100%	99%	100%	99%	100%			99%
Screen for PTSD	90%	98%	94%	97%	97%	98%	98%	98%	97%	100%			98%
TBI Screening	90%	97%	100%	98%	98%	98%	97%	100%	98%	100%			99%
Tobacco Counseling FY09	93%						77%	87%	65%	90%			78%
<b>Overall % Satisfied:</b>	90%	90%	92%	91%	93%	93%	93%	94%	94%	95%			

\*If blank = no available data

# VA-HEDIS Quality Comparisons

CLINICAL PERFORMANCE INDICATOR	VA FY07 <sup>(1)</sup>	VA FY08 <sup>(1)</sup>	VA FY09	VA FY10	VASDHS FY10	VASDHS 2011	HEDIS Commercial 2008	HEDIS 90th Percentile
Breast cancer screening	86%	87%	87%	88%	91%	88%	70%	77%
Cervical cancer screening	91%	92%	92%	93%	95%	94%	80%	86%
Colorectal cancer screening	78%	79%	80%	80%	81%	74%	59%	67%
LDL Screening after AMI, PTCA, CABG	93%	94%	96%	96%	95%	100%	89%	92%
LDL Cholesterol < 100 after AMI, PTCA, CABG	62%	66%	67%	69%	76%	71%	60%	69%
Diabetes: HgbA1c done past year	97%	97%	98%	98%	98%	98%	89%	93%
Diabetes: DM control HbA1c ≤ 9.0%	84%	84%	84%	85%	78%	87%	72%	80%
Diabetes: Cholesterol (LDL-C) Screening	92%	95%	96%	97%	97%	99%	85%	88%
Diabetes: Cholesterol (LDL-C) controlled (<100)	64%	68%	69%	72%	71%	72%	46%	53%
Diabetes: Eye Exam	85%	86%	88%	91%	92%	85%	57%	70%
Diabetes: Renal Exam	91%	93%	95%	93%	91%	85%	82%	88%
Diabetes: BP < 140/90	77%	78%	80%	76%	84%	79%	66%	73%
Hypertension: BP < 140/90 most recent visit	76%	75%	77%	82%	75%	89%	63%	72%
Smoking Cessation Counseling <sup>(3)</sup>	83%	89%	96%	97%	97%	100%	77%	83%
Smoking : Medications offered <sup>(3)</sup>	n/a	84%	90%	97%	95%	99%	54%	63%
Smoking: Referral/strategies <sup>(3)</sup>	n/a	92%	96%	97%	97%	100%	50%	58%
Immunizations: influenza,	72%	84%	83%	81%	78%	81%	50%	58%
Immunizations: pneumococcal,	90%	94%	94%	94%	95%	95%	n/a	n/a

# Current targets

- Transformational Initiatives:
  - Patient-Aligned Care Teams (Medical Home)
  - Chronic Disease Management using Telehealth
  - Health Promotion and Disease Prevention as an integral part of primary (and other) care
  - Realigning Care to be Veteran-Centric
    - At the time of the patient's choosing
    - Open access to all clinic (currently 98% within 14d)
    - Home and on-line care

# Improved Efficiency VA-wide: Enrollees, Patients & Resources/Patient: 1996-2004

